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ABSTRACT

This guide concerns organizing and administering materials and resources outside the classroom and using them to meet educational objectives. It contains a brief historical review of conservation, and environmental and outdoor education in America and Europe. The identity and roles of administrators are described by discussing several studies of their personal and professional characteristics. Factors involved in successful eco-education projects are analyzed and elaborated upon. The importance of program evaluation is stressed and dealt with in depth. A brief summary of legislation and regulations that are relevant to eco-education is presented. A section on staff improvement offers various methods and techniques for personnel development. Resource materials, sites and facilities for eco-education are listed and discussed. The manual also includes information on initiating and interpreting a program and behavioral characteristics of a good administrator. (Author/SB)

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Administration of Eco-education

Handbook for Administrators of

- Environmental
- Conservation
- Outdoor Education

Programs

U.S. DEPARTMENT OF HEALTH,
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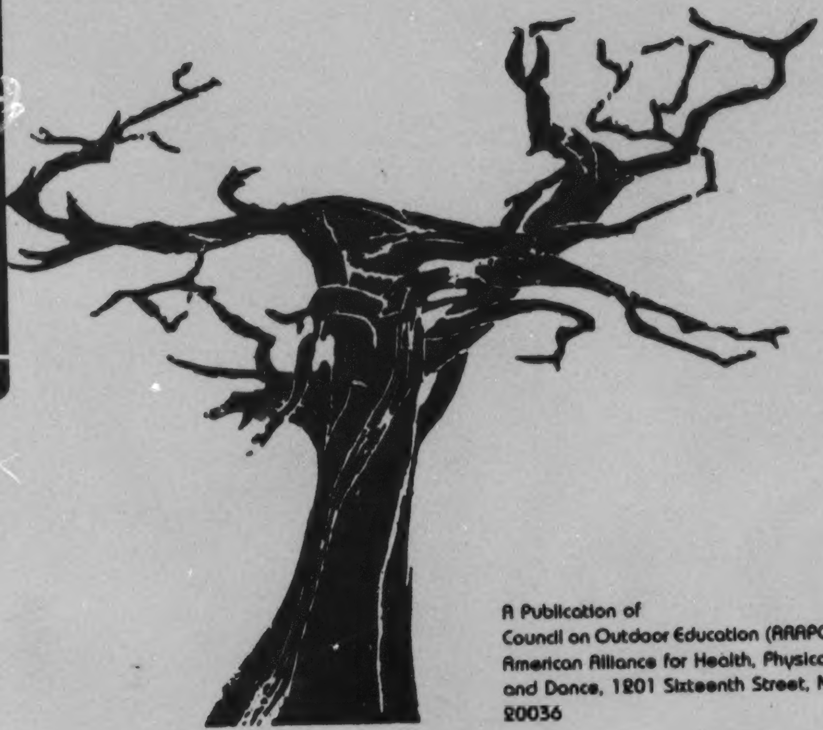

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ADMINISTRATION OF ECO-EDUCATION

Handbook for Administrators of Environmental/Conservation/Outdoor Education Programs

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October 1979

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CHAPTER I

INTRODUCTION

This book is about organizing and administering materials and resources outside the classroom and using them to meet educational objectives. Many people know this as "outdoor education." Other people use other terms.

Words are easy to come by; definitions less so. Since people quibble over the meaning of the words used in definitions, what counts may not be the words at all. What people do in the outdoors - outside classrooms - to educate is what is important. Organizing and administering those things is what this book is all about.

In order to avoid the semantic problems which too often develop, sometimes at an emotional level illbefitting the scholarly settings in which they take place, among the proponents of environmental education, conservation education, and outdoor education, the authors have chosen to use the term "ECO-education" throughout this book. ECO-education, thus used, is meant to include that which has gone on for 30 years or more under the general term "outdoor education," plus all of the outdoor aspects of the areas of environmental education and conservation education. No one is asked to abandon his/her own favorite terminology and adopt the term used here; no changes of mind are suggested on the parts of scholars or practitioners as to what is encompassed by any of the three terminologies combined for the purposes of this document alone. Readers are asked to accept the term for the purposes of this book only. The educational aims of people who identify themselves by the three terms are highly similar, if not identical. And, as of this writing, there are not nearly enough professionals, even combined, to be equal to the tasks ahead. What was done, in effect, was to use one contrived word to avoid the constant repetition of six words. The principles and practices by which these programs are begun, organized and administered are indistinguishable. The burden of this book is solely the exposition of those principles and practices.

The book deals with a multi-faceted concept and, while the concept of each person is different, these fit the umbrella:

1. Learning how to build a cooking fire by doing it.
2. Determining the board feet of lumber in a tree as a part of a mathematics class.
3. Going into the forest to study plants used by Indians as a social studies assignment.
4. Making an environmental impact study.
5. Writing one's impressions, for a language arts assignment, of a squirrel gathering nuts, while outdoors.
6. Standing on a street corner estimating the speed of passing automobiles.
7. Going to a dairy to learn about the production of milk.
8. Going on a follow-up trip to the cheese factory to learn how the cheese is produced from milk.
9. Taking a trip to the school boiler room to trace the flow of "energy" or "water" into and out of the school building.
10. Measuring out a new baseball field - and then using that baseball field as a part of physical education class.
11. Spending at least one day and night in a "resident facility", usually a children's camp.
12. Doing manual work to improve the environment.

13. Climbing a mountain.

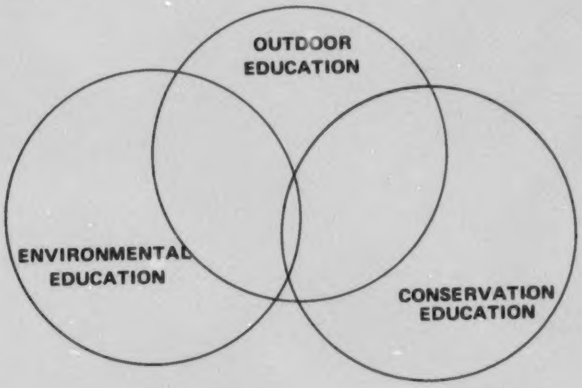
14. Rappelling down a cliff.

As readers examine what is included under this umbrella, they will quickly realize that most of the subject matter that is involved could be "covered" indoors. You can study about the "outdoors" while inside the classroom - but, that is not what this book is about.

In the view of the authors, the outdoor experience has no objectives of its own. The objectives are those of the subjects being taught. They are the educational objectives that society has established for the school and other processes and institutions by which the young become adults. In effect, when teachers go outdoors to teach science they work to attain the school's science objectives, one of which is to understand the immediate environment, and they have decided that the outdoors can help achieve those objectives. Simply, they are dealing with the methodologies involved in going outside the classroom to learn and to teach that which can best be learned and taught there. What could be more basic than L. B. Sharp's, "That which can best be learned inside the classroom should be learned there. That which can best be learned in the out-of-doors, dealing with native materials and life situations, should there be learned."

There are some clear implications in this, however. If teachers go outdoors the expectation is that they have a reason for going outside and that reason probably has something to do with experiencing directly whatever is being taught. If the reason for an English class going outdoors is to sit under an old oak tree to create a mood while discussing Kilmer's "Trees," the outdoors is used to meet educational objectives. But, if it is just because the school building windows are stuck or the air conditioner is not working - there is no more connection between the use of the outdoors and the educational objectives than there is between the classroom in which there is no tree and those same objectives. Indeed, there may be less because the outdoors contains more distractions.

Certainly, close cousins such as nature study, environmental education and conservation education are of interest. Sometimes all three are identical for all practical purposes and at other times they are not the same. One way to express the relationship of what this handbook is all about and these areas is through the use of the overlapping circles of the Venn Diagram.



Many aspects of environmental education, conservation education, and other more clearly defined school subjects such as science, arithmetic, social studies and so on are carried on outdoors. Hence, portions of all of these fit the umbrella. But, portions of these studies are best carried on indoors. In this respect, they are not the concern of this handbook. School administration books dating back many years are quite adequate guides for those tasks.

Readers are asked to read again the first sentence in this section and note that it is comprehensive; it encompasses all of those education activities carried on outside the classroom, whether the aims of those activities fall into the cognitive, affective or psycho-motor domains (or admixtures thereof).

Like any other educational program in the famous Cubberly maxim, "Schools (indoors and outdoors) are organized so that they may be administered; they are administered so that they may instruct." Despite its frequent tone of free and easy informality, the same kind of organizational and administrative problems apply in the outdoors as indoors.

This handbook has been designed explicitly to identify those problems and to indicate at least the directions in which the authors perceive the answers lie. It draws upon research; it draws upon the thinking and writing of others; but, more importantly, it draws upon and synthesizes the administrative experience of the authors. Its authors make no apology for this fact: the undergirding of this book is that one learns by experience. The experiences of its authors are the *only* ones they've actually had!

CHAPTER II

HISTORICAL PERSPECTIVE

Although formal environmental and outdoor education programs appeared very recently on the educational scene in America, their real beginnings can be traced to both people and "movements" of earlier times in both Europe and America. A brief and therefore incomplete statement of the historical roots of the now accepted practice of taking learners outside the classroom for educational experiences is important for administrators as well as for teachers.

In Europe, the philosophy concerning direct, first-hand experience in the outdoors is clearly traceable to the seventeenth century when Comenius (1592-1670) wrote:

> "As far as possible men are to be taught to become wise, not by books, but by the heavens, the earth, oaks and beeches, that is, they must learn to know and examine things themselves and not the testimony and observation of others about the things."

Rosseau (1732-1778) espoused a return to simplicity, reality and personal experiences "according to nature." Pestalozzi (1746-1827) wrote:

> "Observation is the absolute basis of all knowledge. The first object then, in education, must be to lead a child to observe with accuracy; the second, to express with correctness the results of his observation."

Froebel (1782-1852) urged teachers to:

> "...allow the wee one to stroke the good cow's forehead, and to run among the fowl, and play at the edge of the wood. Make companions for your boys and girls of the trees and banks and the pasture land."

These and other ideas that emerged from the educational ferment going on in Europe were brought to the

United States by, among others, Louis Agassiz (1807-1873) an eminent European scientist who moved to Harvard to teach in 1848.

Edward A. Shelton, an American normal school president (Oswego, New York) began to promote the idea of "project teaching" upon his return from visiting Pestallozzian schools in Europe in 1859. Both men stressed the importance of observation and of the Agassiz motto: "Study nature, not books."

Nature Study was the term about which these innovative educational ideas coalesced; but the movement progressed slowly. It was not until 1908 that the idea had gained enough adherents to form the American Nature Study Society. In 1910, the American Camping Association grew out of a small New England group which had earlier been organized to improve and promote children's camping. Shortly then, followed the organization in 1919 of a diverse but enthusiastic group of followers of the philosophers William James and John Dewey into the Progressive Education Association. The first and second of these national societies remain viable, though relatively small forces today.

There is little doubt that ambitious, eager teachers - possibly throughout all of education's history - have sought the motivation and reality of the outdoors. Indeed, it was not until rather late in history that education went indoors! But, as an identifiable "movement," outdoor education did not emerge until the 1940's. The establishment of L. B. Sharp's National Camp in New Jersey and the activities centering around three W. K. Kellogg Foundation camps in Michigan, and especially the activities of Julian W. Smith, there, are considered by many to be its beginnings.

In 1944, several school administrators in Calhoun County, Michigan, urged on by Smith and Hugh Masters (W. K. Kellogg Foundation Education Director) formed the St. Mary's Lake Camp Association and began to offer two-week "school camping" sessions to groups of sixth graders in that county. Three years later this entire program underwent two major changes:

1. It moved to Clear Lake Camp, another and better Kellogg facility.

2. It came under the nominal sponsorship of the Battle Creek Schools, (drawing considerable financial support from the Kellogg Foundation).

Today, most students of the movement credit the Clear Lake Camp with "starting the whole thing" in America. There is some doubt that this simplistic history would bear the scrutiny of rigorous historical research; other things were going on at the same time. And history has a way of disproving "single causation" of any major movement.

But it can be documented that leadership flowed from both Clear Lake Camp and National Camp to the corners of the nation. Countless (and literally uncounted) programs now going on throughout the nation have, in some measure, been influenced by National Camp and Clear Lake Camp. And two names will always be associated with the two institutions: L. B. Sharp and Julian W. Smith.

Outdoor education and associated ventures proliferated from these beginnings. The authors like to identify the decades from the 1940's forward into these eras:

> The 1940's - the period of innovation, characterized by "school camping," the wholistic philosophical approach and the geographical spread to California, Missouri, Texas, and to numerous other locations.
>
> The 1950's - the period of expansion, consolidation and the emergence of teacher-education programs.

The 1960's - the period of (1) increased emphasis on the use of diverse resources other than the school camp, (2) a decrease in emphasis on the wholistic philosophy and (3) a corresponding increase in subject matter emphasis. Also, while outdoor education programs had always stressed conservation, the 1960's marked a decided increase in what had come to be called Environmental Education. (Indeed, many programs changed their names as well as their emphases.)

In the 1970's, with the increased recognition that we live on a finite Earth, that population growth was geometric and accelerating, and that essential systems were being damaged beyond repair and recovery, came a new urgency, emphasis and focus to what had been termed "Conservation" in many American schools. And with this came the term "Environmental Education." This, and the needs of youth for adventure or "risk" and the need for experiences from which new values and self-concepts could be derived, combined with Outdoor Education to form what we now call ECO-education. The period of the seventies is marked, then, by an increased environmental emphasis plus the appearance of new terminologies indicative of a rich diversity of approaches:

"Awareness"
"Adventure - risk programs"
"Acclimatization"
"Environmental encounters"
"Initiative tasks"
"Values clarification"
"Self-concepts"
"Creative play"
"Experiential Education"

The list goes on and on.

It may well be that scholars, looking back on the 1970's, will characterize that decade as one of broadened objectives. That appears to be the case as of this writing.

As the 1970's moved to a close, and as diverse as the movement has become, there have emerged from practice and some (not enough) research, some well established - and pragmatically proven - ways of promoting, organizing and administering these outdoor related programs. While proponents of the various "names" given to these programs differ, sometimes in strident terms, about what they should be called, they all *do* essentially the same things. Certainly, the principles of organization and administration of good outdoor education, good conservation education and good environmental education programs differ mainly in degree of emphasis on program, not in principles of organization and administration.

This handbook is written with the objective of drawing together for administrators and persons who plan careers in administration, these established principles which are operative when teachers take learners outside the classroom for educational purposes, irrespective of the name given to those purposes.

CHAPTER III

THE MANY FACES OF ECO-EDUCATION

Much of what is coming to be called ECO-education in the United States and Canada began in the 1940's as "school camping" and traces its beginnings to two states, New Jersey and Michigan and, primarily to two men in those states, L. B. Sharp and Julian Smith, respectively. From those small beginnings, not too long ago, as educational-innovation time is measured, has come an educational thrust which touches literally millions of learners across the continent.

For a few years the movement focused almost entirely on its school camping aspects. But not for long. The basic idea of ECO-education, "Study in carefully selected instances, the real rather than symbols representing the real," caught on in so many places and with so many people that it could but expand. And, fortunately, its expansion was multi-dimensional: What has begun as a school "thing" soon became a function of other-than-school organizations. And it moved away from the rather typical children's camp settings into a rich and wide variety of settings.

This chapter deals with, (1) its expansion into other-than-school sponsored, on-school-time outdoor educational experiences and, (2) what was almost a literal explosion as to types of activities now categorized as ECO-education.

Organizations other than schools picked up the idea with gratifying rapidity. Nature Centers, most of which had sprung up following the Nature Study movement of the 1890's, began conservation, environmental or outdoor education programs, and openly called them such. This was done either in cooperation with nearby schools, or, failing that expedient, on their own. While it was much simpler to organize and administer such programs in cooperation with local schools, circumstances made this practice impossible in some localities. In many instances, the nature centers went right on with the job anyway. They sponsored after-school, evening and summer activities, frequently as outdoor clubs. The nature center device proved to be so successful that a number of school districts now have begun their own nature centers.

At Kalamozoo, Michigan, the "Nature Center for Environmental Education" is fairly typical of such organizations and carries on an excellent program in cooperation with nearby schools in addition to a variety of activities which are unrelated to school programs. For instance, its 1977 Summer Youth Program brochure announced the following features:

- Nature Day Camp (ages 7-11)
- Special Nature Day Camp (ages 10-11)
  - Pond Life sessions
  - Pioneer Life sessions
  - Nature Study for Pre-schoolers (ages 3-4)
  - Junior Nature Day Camp (ages 5-6)
- Nature Residence Camp
  - (held in a nearby state-owned camp)
  - Natural Science Field School sessions (ages 11-15) specialized as follows:
    - Nature Photography
    - Nature Photography II
    - Rock Cutting, Polishing and Tumbling
    - Edible Wild Plants
  - Nature Caravans (ages 13-16)
    - Travel experiences

Although all of these activities are on a fee basis the Center does maintain a Scholarship Endowment Fund for "many youngsters who would be unable to attend our summer programs-----." These funds are secured by donations from Parent Teachers Associations, service clubs, and individuals.

Some school systems have established their own centers. Probably the best known and among the best financed one known to the authors, is the DeKalb County, Georgia, Board of Education's Fernbank Science Center. Located on 49.5 acres of forested land, it has a building which includes, among other things, a planetarium, three classrooms, seven laboratories, a preparation room, a library, offices and exhibit spaces. Some measure of the scope and level of its activities may be gleaned from the fact that at one time its staff numbered sixteen holders of Ph.D. degrees. Thousands of youngsters use both the buildings and the forest trails each year under the guidance of their classroom teachers and/or Science Center personnel. While not exclusively for ECO-education purposes, experiences in the natural world are a major emphasis there.

Another example are the ECO-education cooperatives, formed when several school districts - no one of which could finance a program alone-joined forces. Illustrative of this type of organization is the upper Mississippi ECO-Center in Carroll County, Illinois. Established in 1971, with funds from Title III of the Federal Elementary and Secondary Education Act, the project is currently administered and staffed by the Regional Educational Services Office (formerly known as Office of the County Superintendent of Schools). It continues to serve the schools of Carroll County plus some schools in an adjacent county. It is now financed by local funds.

Relatively new on the scene are several proprietary organizations which provide services for schools ranging from the simple use of facilities to a complete package including facilities, equipment, food services and personnel to carry on the educational program.

The following report was submitted by a graduate student(1) concerning one center she visited on a study tour of the northeastern states. It describes what is surely one of the more unusual adaptations of existing facilities to emerging needs:

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(1)Maureen Cooney Cockerline

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Pocono Environmental Education Center

"Located just west of the Delaware River near Dingman's Ferry, Pennsylvania, is the 38 acre tract which serves as a home base for PEEC - Pocono Environmental Education Center. A field center operated by Keystone Junior College of LaPlume, Pa., in cooperation with the U.S. Department of the Interior National Park Service, its available outdoor resources extend far beyond the confines of its main center. PEEC is located in the newly created Delaware Water Gap National Recreation Area which will eventually encompass about 70,000 acres. To the west, Pennsylvania's Delaware State Forest extends the reach of available lands and just east, across the river lie New Jersey's Stokes State Forest and adjacent High Point State Park.

'Indisputable in a prime location, PEEC offers more than its natural facilities to visitors. The center was originally a honeymoon resort - Honeymoon Haven - and its structures and layout provide a good example of the adaptation of existing facilities for educational purposes.

'The main building, housing administrative offices, meeting rooms, library, nature and crafts centers and media preparation center (including a dark room for student use) is more plush than one might expect - it looks like a hotel lobby. The large reception area is ringed by learning center activities and exhibits. Only the child who strays from these may notice that there is a heart-shaped cut in the carpet - orginally the resort's dance floor.

'Outside along a circular road are the 45 cottages which serve as housing for visitors and participating youngsters. As one might expect, bunk beds are the basic furniture, in cottages accommodating four, six, eight, or sixteen persons. The surprise here is that most cabins also have cutstone fireplaces, raised fieldstone hearths, tiled bathrooms with showers and tub (many, I'm told, are heartshaped) and even a heartshaped mirror! Imagine a ten year old boy in a heartshaped bath! Nevertheless, cottages are fully winterized and comfortable and I venture a guess that the mini-suburbia look and back-home comfort of the "home" in PEEC's "neighborhood" is conducive to ready adjustment to a new environment.

'The Center includes a pond with ducks, an indoor heated pool where year round swimming instruction can take place and a fenced in, outdoor pool (yes, it, too, is heartshaped...interlocking double hearts to be exact!). A dining hall is centrally located and comfortably seats 150 people. Other facilities include a 100 seat outdoor theatre, a Braille trail, nature trails, and enough learning stations to keep my pen and notebook busy. As a final feature, there is, adjacent to the main building the most complete example of a creative playground which I have seen. Anyone interested in getting ideas for designing one or interested in having a fine lot of fun returning to age ten might do well to pay a visit here."

But most are not nearly so exotic. It is the informed opinion of the authors that most resident ECO-education programs are carried on in fairly typical children's camps, most of which have not even been winterized, and which do not belong to the schools using them. Ownership of the camps range from private to non-profit organizations.

Church camps seem to have a highly favorable record in availability for the use of schools. Indeed, one such camp in Wisconsin even changed its name to Outdoor Education Center and one in Illinois is known as the Outdoor Ministry. Recent information from New Zealand indicates that one school district (Wellington) has leased twenty-four camps owned by others.(2)

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(2) Letter from Professor E. A. Scholer, University of New Mexico, while on a visit to New Zealand. 3/9/77.

At least two states, Michigan and Wisconsin, have declared a policy of building all future state park camps as year-round facilities in order to encourage their use by schools. Years ago these two states clearly saw the advantages of providing camps which were usable during that three-quarters of the year when schools have access to children.

With the advent of Outward Bound and other adventure-risk programs came a whole new aspect to ECO-education. Outdoor space requirements and equipment costs shot up but fixed facility costs went sharply down. Leadership skills also became more critically important. Organized education (schools and colleges) have not moved into adventure-risk programs as rapidly as some may have wished but the gap has been filled by private agencies while organized education, even slow to move, catches up. Best known of these private ventures are Outward Bound, operating from several localities scattered over the continent, and the National Outdoor Leadership School, headquartered at Lander, Wyoming.

Where school boards have been unable or reluctant to allow ECO-education activities during school hours, a number of dedicated and ingenious teachers have led out in the formation of outdoor clubs, many of which are active after school, weekends and summers. Begun at the secondary school level, recent years have witnessed movement downward into middle school and, in rare instances, into the elementary schools.

Public conservation agencies, variously titled in various states and provinces, have also begun ECO-education programs. In a number of instances such agencies have furnished, at the minimum, simple facilities. But in a heartening number of other instances, they have actually furnished specialized leadership, personnel, in-service education programs for teachers and, probably most important, enthusiastic educational support.

So, it is clear that ECO-education, a many-faceted movement, is on the move. In many communities schools have taken the lead. But, in other places where schools have not led out, other agencies and organizations have done so. An "idea whose time has come" does not wait.

CHAPTER IV

IDENTITY AND ROLES OF ADMINISTRATORS

Who are the administrators of ECO-education programs and, of more importance, what specifically do they do? The relatively small amount of research which has been done on the subject makes this question tentatively answerable. However, the experience of the authors in their contacts with many administrators, only tends to confirm the research findings.

The only study which sought to determine who administrators are, where they came from - personally and professionally - and, only incidentally, what they do was limited in nature. With the flurry of ECO-education activity which followed the Elementary and Secondary Education Act of 1965, one of the authors sought out sixty-eight (68) administrators of federally-funded programs and, by means of a questionnaire, elicited the following "profile" of twenty-eight (28) personal and professional characteristics:(1)

1. His title is likely to be "Director";
2. He is married, male, slightly over forty years of age;
3. He is married to a woman who does not work outside the home;
4. The couple is rearing a small family, smaller than the one in which he was reared;
5. The director was reared in a town of 2,500 or more population;
6. His childhood hobbies were outdoor-oriented, fishing predominated;
7. He did not participate in family camping as a child or youth;
8. He did attend a children's camp, likely operated by Boy Scouts or a church;
9. He did not, as a youth, work in a children's camp;

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(1) Donaldson, George W. The "New" Director of Outdoor/Conservation Education. Oregon, IL. The Taft Campus. 1969. (Mimeo)

10. He belonged to one or more outdoor-related organization before assuming his present position;
11. He credits his interest in outdoor/conservation education to either the environment in which he was reared, conservation experiences he has had or to personal hobbies;
12. He holds either a Master of Science, Master of Arts or a Master of Education degree;
13. In graduate school, his major was some aspect of Education;
14. His undergraduate major was Science or Education;
15. If he engaged in undergraduate extra-curricular activities, his activities were sports and athletics or fraternity work;
16. His classroom teaching experience was at the secondary school level, most likely in Science;
17. He also coached or directed athletics and/or sports;
18. He is a member of his state teachers association and of the National Education Association;
19. If he belongs to other professional associations, they might be one of a large number scattered over the spectrum of educational associations;
20. He has attended meetings devoted to outdoor/conservation education, usually sponsored by state agencies, conservation organizations, or professional associations;
21. His greatest problems are finance, personnel, "time", facilities, relations with other school personnel and curriculum development;
22. He was an employee of the sponsoring school system before his present project began;
23. He played a role in writing the proposal which initiated the project which he directs, most likely a leading role;
24. He entered his present position when the project was in the operational stage;

25. He places his school system, philosophically, as "moderate" or moderate-liberal";
26. He places himself, philosophically, as "moderate-liberal" or "liberal";
27. His great satisfactions come from the interpersonal relations in his work;
28. He places greatest stress on "instruction" as an important element in graduate preparation for positions such as his.

Probably the most important single fact brought out by this survey is that the typical "new" program is pretty much a home-grown product, conceived by a local educator, who participated, most likely as a leader, in writing the project proposal. Otherwise, the study seems to confirm the assumptions made by Brimm, Gilleland, MacMillan, Davis and Walton(2) in earlier studies, all of which made use of smaller and/or more geographically limited samples.

Of signal importance to this handbook is not so much who the administrators *are*, but *what* they do. In 1964, Rillo(3) sought, by a rather sophisticated "role definition" technique to (1) determine what roles were played by outdoor education administrators and (2) the differences, if any, in the expectations of three groups of "role definers": superintendents, coordinators and teachers in the system. He found no significant differences on thirty-six of his forty-five "roles" or check-list items. Significant differences did appear on nine items. He summarized his study by writing:

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(2) See Chapter bibliography for documentation.

(3) Rillo, Thomas J. *A Preliminary Definition of the Role of Outdoor Education Coordinator in Representative Public School Outdoor Education Programs.* Doctoral Dissertation, Southern Illinois University, 1964. 144 pp.

"...The items of agreement which appeared with the greatest frequency were:

1. Assume leadership in developing aims and objectives of the outdoor education program.
2. Assume responsibility for integrating aims and objectives of outdoor education program to total school curriculum.
3. Avoid making major changes without first seeking administrative support.
4. Explicitly define the organizational role and function of all outdoor education personnel.
5. Assume responsibility for interpretation and achievement of program objectives.
6. Defend staff from unfair criticism.
7. Be responsible for continuous evaluation of the outdoor education program by all personnel involved.
8. Be responsible for the operation of the program delegated to him under the rules established."(4)

Of equal importance are the nine items on which the groups of "role definers" did significantly disagree:

"1. Accept full responsibility for the decisions of subordinates.
2. Assume responsibility for stimulating a philosophy of outdoor education for the program.
3. Avoid personal involvement with special interest groups in the community.
4. When needs are perceived, make decisions changing the outdoor education program policy and notify teachers.
5. Accept non-teaching staff as members of team making contributions to the program.

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(4) Ibid, pp. 102-3

6. Provide in-service education for all outdoor education personnel.
7. Organize community groups to prevail upon Board of Education the need for increased allocation of funds for outdoor education programs.
8. Accept teachers' analysis of what they are doing with groups in the field.
9. Brief teachers on their legal responsibilities and liabilities unique to the outdoor education program."

Readers will note that the authors of this handbook do not entirely agree with those who disagreed. Indeed, specific exception is made to items numbered 6 and 9 to the extent that a full chapter herein is devoted to:

In-service education
Legal responsibilities and liabilities.

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CHAPTER V

BENCHMARKS OF GOOD ECO-EDUCATION PROGRAMS

While no definitive research has been done on the subject, it has been observed by the authors and confirmed by many administrators that on-going, successful ECO-education projects have most - if not all - of the characteristics elaborated in this chapter.(1) Most readily available materials come from the various projects funded under the federal Elementary and Secondary Education Act of 1965. This because of reporting required by the various state departments of education which supervised the projects. Projects not federally funded probably keep adequate records but they are usually not in the public domain and are less frequently published. So, the authors have had to rely on the spoken words of administrators of such projects. Significantly, not a single such administrator has spoken in substantial disagreement with the "benchmarks" cited below:

1. Access to Suitable Lands

The use of land appears to be an absolute essential to many forms of ECO-education projects. Not too many years ago, school people were insistent that fee simple ownership was necessary. Experience, however, has taught that this is not the case. Many programs are conducted on leased, borrowed, or shared land.

One study suggests that some of the earlier estimates as to how much land is needed for a resident outdoor education program were conservative and too low. In early years, outdoor educators took the position that the formula of the American Camping Association, one acre per child, was about right. Now ECO-educators are calling for larger tracts, 200 acres or more.(2)

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(1)Most of the material in this chapter is drawn from Donaldson's article, "Ten Characteristics of Successful ECO-education Projects," JOPER, 47:56-7, April, 1976.

2. Sharing the Experiences of Other - and Successful - Projects.

Various devices are employed in order to profit from the successes and failures of others. Probably the most used is that of employing, as consultant, the director of another project or a university expert. Printed materials are obviously helpful.

Administrators join associations, visit other projects, read widely, attend conventions, convene informal sessions with others similarly employed and use many other devices in order to take advantage of the experience of other administrators.

Sharing the experiences of others is, while not the necessity of access to land, surely highly desirable. Indeed, it may mean the difference between success and failure.

3. Involving the Services of Colleges or University.

Institutions of higher education are often involved in some way with successful programs. At the minimal level, the relationship may be a college faculty member serving as consultant. It may be that the college offers a special course or courses generally in extension, for the sponsoring school system. College faculty members also may offer briefer in-service education sessions or furnish specialists to assist in project evaluation.

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(2) Donaldson, George W. and Donna Schmidt: "The Desirable ECO-Education Site." Oregon, IL. The Taft Campus, June, 1974. (Mimeo)

At the student level, colleges frequently furnish students, teachers or interns who actually assist in program operation.

4. Employing Specifically Educated Leadership.

While the leadership in outdoor programs typically comes from within the sponsoring school systems the person chosen as leader either already has, or arranges to get, graduate study specifically to prepare him/her to do the job. Increasingly, such study is available in all parts of the country. The operation of projects or programs without specifically educated leadership is no longer necessary or, indeed, excusable.

5. Initiating an Intensive Staff Development Program.

It is as true for environmentally-oriented programs as for any other education innovation, that programs simply do not succeed unless they are paralleled by efforts to educate, in-service or otherwise, the personnel involved in the new techniques.

Several devices are employed:

Extension courses or workshop offered by colleges or universities
In-service education experiences offered on released time
Mini-workshops offered after schools are dismissed in the afternoon
"Institutes" or day-long in-service education experiences.

6. Stating Objectives in Behavioral Terms.

As federal activities have increased, so has the emphasis on behaviorally-stated objectives. Indeed, ESEA projects have recently been expected by many State Administrative agencies to state project activities, even dissemination, in behavioral terms. Pressures from the state education offices in this direction may or may not continue in the future.

7. Employing an Objective Scheme of Evaluation of Project Outcomes.

Again, and largely the result of pressures from the state education offices, ECO-education projects are increasingly required to formulate and implement highly objective means of evaluation.

Frequently, sponsoring schools lean heavily on university consultants for assistance with evaluation, as well as with the writing and clarifying of objectives. "Outside" evaluators, not university-related, are also frequently used for this purpose.

8. Carrying on an Intensive Program of Professional and Lay Interpretation.

Besides the relative newness of outdoor instruction, the very fact that it is carried on outdoors, away from school, suggests to schools that both teachers and laymen need to know about what is going on. Public relations efforts range from simple news releases and brochures explaining the program, to speeches and audio-visual presentations or TV and radio broadcasts. ESEA projects often require rather broad and systematic dissemination efforts; others are wise to make such efforts, especially in the home community.

9. Encouraging Broad-Based Participation by Professionals and Laymen.

If only for the reason that educational innovations need broad support, the innovators of outdoor programs do well to enlist the assistance of many teachers and a carefully selected advisory group of laymen. But, aside from the somewhat political functions of advisory panels, there are substantive contributions to be made by both groups. If the program is to be genuinely tailored to local needs, many local people need to be involved.

10 Employing as Consultant A Person or Persons Who Have Experience With Similar Programs.

In order to bring to bear the experiences of those who have traveled the same route, schools frequently employ an outside consultant. The consultant may well be the director of a similar, successful program elsewhere, or he may be a professor who has worked in several programs.

Especially in the areas of stating objectives and of evaluating outcomes, outside consultation is almost always necessary.

11. Strong Assertive Leadership of the Fashion Suggested Elsewhere in this Handbook is an Essential Component of any Innovative Educational Venture.

Surely it is no less true for ECO-education projects.

Programs exhibiting most or all of the above characteristics are highly likely to be successful.

CHAPTER VI

EVALUATION

In all educational endeavors, attention eventually is given to assessment and evaluation in which conditions and outcomes are examined and new paths and directions are charted. It is clearly preferable that such evaluation be an integral element of the ongoing program. One can be assured that if this is not the case, critics will initiate their own evaluative efforts and set out to establish that their criticisms are valid.

So it is with ECO-education programs; and while much of the evaluative effort will be on a continuous and informal basis, it may often be formally structured as required by school administrators and by funding agencies such as the state or federal government. In either case, two questions must always be answered, (1) "Are the program's stated objectives worthy and are they being accomplished effectively and efficiently?", and (2) "Should amendments be made in purpose and operation to maximize the program's impact?". Frequently, no provision is made for assessment and evaluation when planning and developing the program. Hence, when it can no longer be delayed because of deadlines, a critical public, or conscience those responsible are often at a loss as to what to do.

Program Objectives

Obviously, evaluation must be based upon the program's objectives. ECO-education administrators must be very clear in what they and their program are out to accomplish. Objectives set forth for ECO-education programs include (a) those dealing with what children experience, (b) changes in the behaviors of participants and (c) operations, facilities, or services being provided.

Illustrative of this first type are these:

a. Sixth grade students will participate in a three to five day Resident Outdoor Education experience.

b. Students will plant 3,000 trees and complete other beautification activities.

c. Each student will write five or more letters to legislators and participate in other communicative efforts to change opinions on environmental issues.

d. Fifty percent of the students will catch and hold a live frog (or fish).

Objectives of the second type are often worded in terms of the kinds and amounts of behavioral change to be noted:

a. Upon completion of this course on food waste (or paper waste) the food found in the school-lunch garbage (or paper in classroom baskets) will weigh 25 percent less than previously.

b. Children completing this course will score significantly (.05 level of confidence) higher on the test of ... than previously (pretest - posttest basis).

c. Students completing the experience will significantly increase the number of peers they select as friends on the "Friendship Test" than they selected prior to the experience, as measured sociometrically.

Illustrative of the third type are:

a. To provide field trip advice and support to teachers needing it.

b. To offer ten one-day staff development sessions to teachers in the district.

c. To operate a library-resource center for County schools.

The implications of using each of these approaches to ECO-education objectives should be clear. In the first case, the program rests on the assumption that by providing the children certain experiences, or if they do certain things, they will grow, develop and/or change in the "right way". While some evidence is at hand to support this assumption under some circumstances, there is none to support it in many other circumstances.

In the second case, the expectation is that what happens to children as a result of ECO-education programs can be identified and measured. Some proponents of this point-of-view contend that this is the only way by which educational programs can or should be evaluated. The authors aren't sure that answering the multiple-choice question correctly or giving the right or a different reply to the Likert-scale item than before can really be equated with a changed child - or even indicates this. But, it may well be more reliable than some other assumptions we make.

In the third case, the assumption is that if help and assistance is provided teachers and students will also change more and learn more. Evidence that supports this view is also scarce.

The writers do believe, however, that ECO-education administrators will be in a good position for evaluative purposes if they really know what they are trying to do, and can set forth - clearly and concisely -

a. Who will be affected by the program
b. What will happen to these people
c. How the administrator will know that it has happened and to what extent.

Many ECO-education programs seem to be designed to assist classroom teachers achieve part of the objectives set for their classes and education in general.

In effect, and like the Science or Reading Coordinator, the ECO-education administrator has few objectives of his own - he and his program exist to support and assist classroom teachers. Rillo, for instance, found a consensus among superintendents, teachers, and outdoor education directors on this point and saw this as the most important role of the outdoor education director.(1)

While some additional objectives of a substantive nature can be set forth for ECO-education programs in which the focus is on conservation or environmental quality, they too are designed to assist classroom teachers to meet the objectives set forth for the school. Another way to say this is simply - ECO-education administrators and their programs exist to help teachers meet educational objectives, generally - especially those focusing on environment and conservation.

Hence, judgements by teachers about the value of the ECO-education program to them in meeting their objectives, and their recommendations for improvement are of critical importance in an assessment program. If a substantial portion of the teachers are not supportive, real doubt is cast upon the continuation of the program on its existing course.

Components of Assessment

A variety of factors should be included in an evaluative program. Although major responsibility for organizing, collecting the data and interpreting the evaluation to the administration and public rests with the ECO-education administrator, he/she is not to determine his role or the role of the program. Just as with all other services in our society, roles ultimately are decided by a higher authority. In this case the school board and the administration make such decisions.

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(1) Rillo, Thomas J. A Preliminary Definition of the Role of Outdoor Education Coordinator in Representative Public School Outdoor Education Programs. Doctoral Dissertation, Southern Illinois University, 1964. 144 pp.

Pupil Change

Ideally, assessment would be almost entirely in terms of measurable changes in the ways in which pupils behave. Unfortunately, the measurement of change in pupil behavior and the definition of "desirable" have not progressed sufficiently to make this possible. Furthermore, many of the changes may not appear until the too distant future to permit one to depend entirely upon this one approach.

Such limitations, however, do not justify omitting this factor from an assessment program. A variety of tests, inventories and checklists are available that can be adapted to a particular program and a particular set of program objectives. A substantial number of doctoral dissertations have focused on the development and use of such instruments in ECO-education programs and some of these have been vigorously analyzed. To the writers' knowledge, however, none of these has been constructed that measure inclusively the specific objectives of all ECO-education programs. However, those available are appropriate for certain facets of ECO-education and should be used in this regard. For instance, sociograms, and interest and appreciations inventories can be used on a pre- and post- basis in resident programs. They might also be used district wide at the beginning and end of the year and the scores of pupils in classes making extensive use of ECO-education experiences be compared to the scores of pupils in non-participating classes. Obviously, such instruments must be used judiciously, and the results interpreted carefully. Apparent changes, for instance, may result from unkown factors, such as pupil ability, teacher attitude or simple maturation, with the ECO-education program or experience being the cause of little of the change. Care should always be used in testing programs to use good research designs and principles.

Testimonials or Professional Judgements

Considerable dependence in evaluation should be placed on the testimony of the initiators of ECO-education programs, the teachers and principals they assist, and the children and adults they serve. These groups can be referred to as the program initiators, assistees, and recipients. Each has an important role in evaluating the ECO-education program.

The initiators of the program had a dream or goal for the program they proposed. The degree to which the dream or vision of these initiators, usually members of a citizen's committee, a few enthusiastic teachers and some administrators, has been met is an extremely important aspect of evaluation. They should be asked: "What has gone well?"; "In what ways were your expectations exceeded?"; "What had you expected to be better?". If the program has met or exceeded their expectations, things are probably going pretty well. Most programs usually fall short somewhere along the line, hence, since the initiators are likely to be biased in favor of the ECO-program; the program may need considerable revision if this group is critical or holds a negative view of it.

Furthermore, ECO-education programs cannot exist after a reasonable trial period, if these people are not supportive and believe the program to be of little value or help to them. Not only would it appear that the experiences and services being provided are of little value; but these people will also resist participating in the program. When this happens, the program cannot operate well.

Hence, the teachers and principals assisted by the program should be interviewed by a person who poses no threat and who can develop rapport with them.

This interviewer, probably someone from outside the school system, should ask the assistees to appraise the program and provide recommendations for improvement. Any recommendations they make should be carefully considered.

In addition, considerable reliance should be placed on the opinions of the recipients, the pupils and their parents and community leaders, concerning the program. Their reactions can be obtained variously - possibly by using survey instruments or opinionnaires in which they state their reaction to various specific program components and provide recommendations for improvement. Despite rumors to the contrary, parents and community leaders, especially those in conservation organizations, are vitally interested in their schools and are more knowledgeable about ECO-education programs than they might appear to be. If they are positive toward the program, good. If they are negative, the program probably should be modified.

Another form of professional opinion useful in program evaluation is that of outside educators. From time to time, school administrators or teachers experienced in ECO-education, should be brought into the district to examine the ECO-education program and asked to react to it. They should be asked (1) "Does this program make sense to you?" and (2) "Is this the kind of program you would like for your school or your child?" The writers know of instances in which outsiders brought in to help evaluate an ECO-education program liked what they saw and went home and started their own.

Program Statistics

Statistics about program growth or increases or decreases in the number of teachers or pupils served this year as compared to last year, number of classes at the resident center and percentage of pupils attending this or that, are symptoms. They indicate the degree to which teachers, principals, pupils and parents are accepting and using the program. Hence, the time required for keeping such records can be justified. Appropriate forms for record-keeping along these lines must be devised at the beginning of the project and be kept carefully. One cannot look back at mid-year to reconstruct events up to that point.

Efficiency

While evaluative efforts focus mostly on whether or not the ECO-education administrator and the program are meeting their objectives, there is a second aspect to evaluation. This is whether or not there are better ways to reach these objectives or to conduct the program. While some answers will come from the evaluative program to the question, "How can we do things more efficiently or effectively?", the ECO-education administrator should always be on the alert and listen to staff members and the program assistees, for suggestions about what might be improved. The ECO-education program must be constantly improving and one purpose of evaluation is to aid in this effort and to help give it direction.

Using Evaluation

Although the main function of evaluation, of course, is to provide for improvement and direction, the results can also be valuable for interpreting the program to the administration and to the public. This must often be done in order to obtain their approval, cooperation and support. It is very difficult to explain what one does and to obtain a continuation of funding and support from educational administrators until such evaluative evidence is at hand.

Finally, evaluation has an even more important function in the case of programs funded through the various ESEA titles. Many of these programs, particularly those involving ESEA Title IV (formerly Title III), are innovative and under trial. They are under observation by educators throughout the country. Under these conditions, evaluation, to a large degree, determines if the program under question will be adopted and replicated in dozens of schools and agencies throughout the state or nation, or if it will quietly fade away at the end of the funding period.

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CHAPTER VII

THE LAW AND ECO-EDUCATION

This chapter deals, in a general way, with some of the law and regulations of interest to ECO-education programs. It does not provide inclusive and comprehensive coverage - nor is it intended to do so. Laws are created by fifty state legislatures and a United States Congress and rules and regulations having the effect of law are promulugated by various boards and bureaus in each of those states and the federal govenment. Hence, the futility and the impropriety of attempting to be sufficiently specific in this handbook to meet the needs of ECO-administrators in any given state. Readers should acquaint themselves with the sections of their own school code and the related codes that apply to ECO-education and to their own activities as administrators.

This chapter touches upon legislation concerning:

a. Permissive and mandatory legislation
b. Camps, sites and facilities
c. Transportation
d. Liability and Insurance

Mandatory and Permissive Legislation

Statutes have been enacted in most states that either *permit* or *require* that conservation and/or environmental education be included in school programs. In the former situation, certain practices are *allowed*; hence, such laws are known as permissive legislation. When the law *requires*, it is known as mandatory legislation. There is a great difference between being permitted and being required to provide ECO-education. ECO-education administrators should be fully cognizant of the situation that applies in their respective states.

Statutes have been enacted in several of the states *permitting* outdoor education or the taking of students outside the classroom, even out-of-state, for educational purposes. The authority to do this in other states is less clear-cut and rests in permission granted by the state educational agency or by common practice. No state law is known that clearly mandates the outdoor experience.

Among the earliest of Acts mandating aspects of ECO-education, primarily conservation, is this from Tennessee:

> "The curriculum of every public school shall include a study of forestry and plant life which shall be taught therein, which study shall include the names and variety of trees grown in the state, their age of maturity, their value to the soil, to animals, and birds; and when possible or practical the children of such schools shall be given an object lesson in the study of forestry by one or more visits during each semiannual session, to some conveniently located forest and there instructed and taught by their respected teachers or some competent person selected for such purpose."

This Act does two things - (1) it mandates a program, and (2) it permits and strongly encourages that this program include field experiences. Similar Acts from Illinois, Montana, and Wisconsin are also quite clear:

ILLINOIS -

> "In every public school there shall be instruction, study and discussion of current problems and needs in the conservation of natural resources, including but not limited to air pollution, water pollution, the effects of excessive use of pesticides, preservation of wilderness areas, forest management, and protection of wildlife (Sec. 27-13.1)."

MONTANA -

> "...a continuing program of conservation education shall be taught in the public elementary and secondary schools of the state... and shall include a wide-spread understanding of conservation as to facts, principles and attitudes....(Sec. 75-2013).
>
> "The State Board of Education shall determine the type of conservation education to be taught in the public schools of this state...provided that conservation education shall not be taught as a specific subject in the elementary and secondary schools, but rather shall be taught as part of, and integrated with, all other related subjects and courses. (Sec. 75-2015)"

WISCONSIN -

> "...every public school shall provide instruction in kindness to, and the habits, usefulness and importance of animals, and birds, and the best methods of protecting, preserving, and caring for all animal and bird life ...every high school...shall provide instruction...conservation of natural resources (Sec. 118.01)."

Additional and more current information about the legislation of a given state may be obtained by inquiring directly of the state education agency. A recent general review of such legislation can be found in the doctoral dissertation of I. W. Stagner, completed at Brigham Young University in 1970, School Laws Affecting Certain Aspects of Outdoor Education in the United States.

Such state mandates for ECO-education do not insure that children will leave school fully versed on

ECO-education or environmental needs. Laws must be interpreted and enforced; the effectiveness of the Illinois law, for instance, being only as great as the importance attached to it by personnel in the State Office of Education, the guidelines they promulgate and the place they give it in their Recognition and Supervision (Accreditation) Program. Years ago, one of the authors of this handbook was approached by his supervisor, a school superintendent, who posed this question, "Do you teach soil conservation in your vocational agriculture classes?" Upon receiving an affirmative, the superintendent said, "Good - we meet the state requirement."

Permissive legislation merely allows a program to be conducted. It permits a board, school district or teacher to do what is set forth. Such laws that pertain to one or more aspect of ECO-education are quite common and usually deal with areas that may not previously have been generally accepted by school authorities. The lack of permissive legislation on a specific program item does not necessarily mean that the school or teacher may not go ahead, however.

Among Acts that permit one or more aspects of ECO-education to be included in school program are these:

RHODE ISLAND -

> "...the school committee of any city or town is hereby authorized and empowered to establish within its limits, open-air schools for the instruction of...children of school age as in its judgement are not in such physical condition that they can be safely instructed in the ordinary schools of the city, and to furnish for the conduct of such schools such medical, food, or other supplies, as are necessary for the purposes for which such schools are, or may be established....(Sec. 16-21-13)."

CALIFORNIA -

"The governing board of any school district may:

1. conduct programs and classes in outdoor science education and conservation within or without the boundaries of the school district and...employ instructors supervisors and other personnel... equipment and supplies.

2. acquire and maintain real or personal property needed for outdoor science education and conservation education programs and classes either within or without the boundaries of the school district. (Sec. 6023)"

While the provisions in most school codes which deal with ECO-education are very general and subject to interpretation, a few statutes are very specific and set forth the number of minutes, specific goals and the specific topics or units to be taught.

One of the most specific statutes is probably the one in Mississippi which established minimum standards regarding agricultural high schools:

"1. There shall be in every school a model orchard with a minimum of one acre demonstrating correct methods of planting, cultivating, pruning, and propagating of orchard plants....

2. There shall be in every school a model garden....

3. Each school is required to have a minimum of one-eighth of an acre of ground set apart as a vegetable garden for use of the home economics department of the school. (Art. 18, Sec. 6460)"

Authority for Resident and Outdoor Education Facilities

Legislation which authorizes or requires aspects of ECO-education has not always been taken to mean that the school could do what it needed or wished to do to provide the program. Hence, additional laws have been enacted in some states which permit schools to acquire or develop camps, to acquire forests and other facilities and to expend funds to operate and maintain them:

NEW YORK -

> "A school district, acting through its board of education, is hereby authorized to establish camps on lands acquired by such school district by purchase, gift, grant, devise, rent or lease or on lands the use of which has otherwise been acquired by such school district for camp purposes. (Sec. 4501)"

MICHIGAN -

> "The board of any school district... may operate and maintain a camp or camps for resident and non-resident pupils for recreational and instructional purposes, or may cooperate with the board of another school district or the governing body of any other municipality of the state, or with the individuals in the operation and maintenance of such camps, any manner in which they mutually agree. (Sec. 340. 602)"

In general, rules or regulations which apply in other educational situations concerning liability, sanitation, facilities, space, building standards and the like also apply to school camps. ECO-education administrators should know the ones that apply in their own situations.

Transportation of Students

ECO-education administrators must be far more interested in and knowledgeable about the legal provisions that pertain to transporting children away from the school than other administrators. Some states have legislation which expressly permits students to be transported away from the school for instructional purposes; others do not and the authority must be assumed. Regardless of the law, school buses are preferred for transporting students. While interpretations vary from state to state and from time to time, a teacher or administrator who transports students in private vehicles takes a big risk!

Schools have long transported students to field trip sites - some hundreds of miles from home. This Illinois example illustrates the need for great care in writing legislation of this nature:

> "The board (of education) shall exercise general supervision and management of the public school system of the city, and shall have the power...to offer, if deemed appropriate, outdoor education courses, including field trips within the state of Illinois or adjacent states, and to use school education funds for the expense of the outdoor education programs, whether within the district or not...."

Enactment of this legislation left some teachers and administrators in a quandry. Was the clause, "in adjacent states," deliberately meant to be restrictive? Could they no long transport students on their annual trips to the historic eastern United States or to the Rocky Mountains for ecological studies? Here, according to some interpretations, is legislation conceived to broaden educational opportunities that turned out to be restrictive.

The absence of mention of an aspect of ECO-education in the school code should be no cause for alarm or thinking that it is prohibited. It may be that such activity is so firmly established as a routine part of the educational program - and has always been - that no effort was believed necessary or appropriate to single it out for special treatment or recognition by legislators. It could mean that in such states teachers are expected to teach what they will teach, in the way they would teach it and where they would teach it, according to their own best judgement.

Probably more important to the ECO-administrator than the permissive Acts are the laws and the regulations that are promulgated by state and local agencies, including school boards, which specifically prohibit certain activities and kinds of programs. These prohibitory Acts should be carefully observed. If change is needed, ECO-education administrators should work to change them through regular channels.

Liability and Insurance

Those involved in providing field trips and outdoor education experiences often face problems concerning pupil injuries and subsequent lawsuits. While no clear evidence is available that indicates that field trips are significantly more hazardous to youngsters than many in-school activities, one suspects that the hazards of teachers and ECO-education administrators being sued if a pupil is injured are greater than if the student were injured in the school building.

A variety of essays and position papers have been developed the last few years by those familiar with the responsibility of teachers concerning pupil injury and the liability they might incur while working outdoors with children. ECO-education administrators should be very familiar with such "positions" and the relevant statutes and court rulings in their own states. They should, from time to time, pick up a book on school law, and read the chapter that deals with "field trips" and the related areas.

The fact that a child is injured on a field trip does not automatically mean that the school or teacher is liable for damages. Many things are involved. Was there a legal wrong, a tort, committed upon the person? Was there negligence on the part of personnel? The way these questions are answered determines liability. And parent permit slips have little value in protecting a teacher from a liability suit, as a parent cannot sign away a child's right to proper care.

Among the principles that should guide ECO-administrators to help reduce the chance of pupil injury and chances of suit are these:

a. Do a good job of planning. This includes a visit to the site prior to the field trip and gaining the appropriate permission from authorities on up the line. Notifying parents and using "permit slips" helps to establish that planning was done. Warn pupils of potential hazards!

b. Provide adequate supervision during the trip. Train those who will provide that supervision. The outcome of most tort suits concerning pupil injury hinges upon the adequacy of supervision.

c. Be sure to have the safety equipment which is appropriate for the activity in which students will be participating. Although the teacher is required to foresee the danger in a situation only to the same degree that any reasonable prudent person would foresee it, doubt remains. What does "reasonably prudent" mean as concerns a pupil? Recent decisions have tended to substitute "prudent professional" for "prudent person."

d. Give emergency instructions before and during the trip - and warn students and teachers of potential hazards.

If an accident can be foreseen, and if the teacher does not take the appropriate steps to prevent it, and does not provide proper supervision, and then does not do all that is possible to do to contain any injury - the courts are likely to find that teacher negligent if a child is injured and hold the teacher and/or the school liable for damages.

In order to insure that a student who is injured by a person other than himself does not suffer damage and to insure that the person who might be responsible for the tort or harm has the means to reimburse the damages, many schools and professionals carry insurance.

Some school districts carry very comprehensive policies which not only cover teachers and administrators as a result of negligence, but they also cover the owner of a field trip site should children be injured at the site as a result of a negligent act on the part of the owner. But, most ECO-administrators will work under school or insurance policies which are more limited and which cover only specified kinds of activities to a limited sum. ECO-administrators should be very familiar with the insurance policies carried by their employing schools and should work to see that the coverage is broadened to cover all school activities inside and outside the school.

In addition, the ECO-education administrator should carry a professional liability policy to (a) protect the child, and (b) protect himself. Some such policies come as a by-product of membership in professional organizations such as the State Education Association. Other administrators want to go beyond such coverage and take out a "professional activities" policy. Such insurance can often be obtained by adding what is known as an "occupational rider" to one's householder's insurance policy.

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CHAPTER VIII

STAFF DEVELOPMENT

In previous eras, this chapter might well have been entitled:

Teacher Training
In-Service Education
Curriculum Planning

or any one of several more restrictive terms. The term "Staff Development" was a reasoned choice. The authors' reasoning on the subject is as follows:

Changes in the experiences by which we educate come about primarily - and certainly best - when the values of teachers change. The values of teachers change when *their own* experiences impel such changes. It follows, *then, that* educational innovation must be preceded by experiences which alter, clarify or re-clarify the values of the persons in the front lines of the educational process, the teachers.

Stated negatively, there is usually little value in an imposed curriculum change. "Authorities", be they administrators, curriculum specialists or special consultants, can do little to change the way teachers teach except as the "authority" works in such a fashion as to change the value systems of the teachers themselves. All of the staff development techniques detailed in the remainder of this chapter assume this undergirding philosophy: Curricula and methods change in a substantive fashion when *people* change - and the important people are the teachers.

A recent, pertinent piece of research sheds even further light on this philosophy. Zigarmi, Bitz and Jensen(1) reported on a representative sample (1,239 teachers) from every school system in South Dakota as to types and usefulness of various kinds of in-service activities. Their conclusions follow:

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(1) Zigarmi, Patricia, Loren Bitz, and Darrell Johnson, "Teachers' Preferences in and Perceptions of In-Service Education." *Educational Leadership*. 34, No. 7, April, 1977, P. 545-9.

"1. The list of in-service activities itself demonstrates that there are many approaches to staff development and that some less-frequently-used approaches (for example, observation and assistance from other teachers, "Current Trends" - like workshops and summer workshops designed around local needs that are held in the local schools) should be included in staff development program planning.

'2. Useful in-service education programs are planned in response to the assessed needs of teachers and build on the interests and strengths of the teachers for whom they're designed.

'3. Our observations substantiate the need to provide teachers with choices about whether to attend, what to focus on, when to start, and whom to use as a resource for professional growth.

'4. More time has to be set aside for staff development - time for planning and carrying out initial staff development activities and for planning follow-up activities that help teachers extend and apply what they have learned.

'5. Useful inservice experiences start with the assumption that teachers can be resources to each other and, therefore, these experiences provide opportunities for teachers to share ideas and resources with each other.

'6. Teachers are more committed to staff development if they have been involved in planning and feel that they have some control over their own in-service experiences.

'Taken together, these observations help us reassess the purpose of in-service education, which should be to support teachers in learning how to improve on what they are doing with students. By asking teachers themselves to become involved in planning, organizing, and carrying out their own staff development programs - efforts are more useful to teachers, and teacher's experiences in staff development are more useful to students, in the long run.

'Attention is directed to the emphasis placed on the involvement of teachers, not just as recipients of in-service activities imposed by someone else or by custom, but in the entire process from planning and organizing, through the actual conduct of the activities right through follow-up. It stands to reason that a teacher who asks for help in a given area will more likely respond in a favorable fashion than one who wasn't asked. It is also worth remarking that anyone with experience in education knows that peers and other teachers are truly the potent influences in changing teaching behaviors."

Given the above involvement philosophy, it is appropriate to detail some of the means by which ECO-education administrators may implement one of their major responsibilities, staff development.

Determining Needs and Interests.

ECO-education administrators who accept the staff development point-of-view stressed herein will expend a great deal of time and energy finding the starting point - the interests, needs and abilities of the teachers involved in the developmental program. Administrators need to know, and know very well, each individual with whom they work. Additionally, administrators will keep the two-way lines of communication open at all times. They will do more asking than telling!

Each One, Teach One.

If it is true that another teacher is probably one of the best in-service education resources, ECO-education administrators have a priceless device right at their finger-tips. All that is needed is tactical support.

A simple tactic well worth trying is for the administrator to play talent-locator and get the teacher with the requisite "know-how" together with the "needs-to-know" teacher. It may well be that a simple conference will suffice. Better yet would be an arrangement which permits the "needs-to-know" teacher actually to observe the "know-how" teacher teaching in the field.

Demonstrations by Administrators

Most ECO-education administrators come out of the ranks of classroom teachers and should be capable of teaching at several levels. A brief demonstration lesson, tied to what has been going on in the classroom, may be all that is needed to get a reluctant, even fearful, teacher moving in the desired direction. One caution is absolutely essential at this point: Administrators using this device should plan carefully with the classroom teachers before and after the teaching act lest the demonstration become simply an isolated experience for both learners and teachers. At worst, the administrators become "quickie-substitute" while teachers take a coffee break!

Specifically Designed Workshops

Workshops which the recipients have a voice in planning are a most useful staff development medium. Here, once again, ECO-education administrators are well advised to solicit in-put from as broad a spectrum of teachers as possible. Consistent with the view of staff development voiced herein, administrators will seek to find not only needs and wishes, but abilities of the teachers. It is entirely possible that needs and wishes may balance out in such a fashion that staffing a workshop is a minor problem; the school system may discover that it already has the talent and that it really needs no "outside" experts. Or it may be that a combination of "insiders" and "outsiders" is needed.

College or University Workshops

Workshops sponsored by colleges have become a popular form of staff development. Many colleges and universities carry courses listed as workshops in their catalogs and these are popular with professionals.

Wise ECO-education administrators will constantly be aware of workshops offered in their areas - academic and geographical. Many go the next and highly desirable step of negotiating with the appropriate academic authorites to get workshops scheduled and offered in their own communities. Such a workshop, because it is located in situ, is much more likely to zero in on local problems than one offered elsewhere.

A little used type of workshop is the locally-offered one, carried on in the summer. It has the distinct advantage of getting the relatively undivided attention of participants. Why this type of workshop is not more widely utilized is a matter for speculation and wonder; the authors' guesses are probably no better than the readers'.

Observations of Teachers in Other Places

Visits by administrators and teachers to other school systems/teachers is a highly effective device in staff development. While it calls for somewhat more tactical planning and expense (substitute teachers, travel funds, etc.) its values far outweigh its costs. A day spent observing someone else, somewhere else, dealing with the problems faced by one's own self can but broaden and deepen understanding and insight. Even if it does nothing more than to confirm, "we're not doing so poorly, after all," it is well worth the effort.

Professional Reading Materials

ECO-education administrators have the obligation of keeping abreast of the rapidly increasing flow of materials, audio-visual aids as well as printed materials, which are now available. When budgets permit, selected materials from this flow should be purchased and made available.

Making materials available is one of the more difficult problems unless there are sufficient funds to purchase multiple copies. One school district known to the authors compiled a listing of all such materials in the system and then implemented a scheme of inter-school tours to make them more readily available. One administrator made up travelling kits of materials to be circulated among the various schools to be served. But, regardless of the methods used to get materials into the hands of teachers, the ECO-education administrator is wise who knows that they do little or no good resting on the administrator's book shelves.

Publications

ECO-education projects are well known for generating great masses of printed, mimeographed or otherwise duplicated materials. The usefulness of such materials varies greatly. If such materials are prepared in response to the felt needs of the people they are designed to serve, the teachers, they are likely to be quite useful. If they come simply from "a gleam in the eye of the administrator" they must be very attractive - and may or may not be useful.

Newsletters are used by many administrators. The better ones call attention to new materials, seasonal activities and the "doings" of others, locally and elsewhere.

Especially prepared curriculum bulletins are frequently circulated by administrators. These, too, are probably best judged by the extent to which teachers use them. Use, in turn, is probably determined by whether they meet the felt need of recipients. Some of the very best are teacher-written.

Regardless of the nature of materials, the effective administrator must know that teachers are bombarded by materials and announcements of materials. ECO-education materials must compete with this bombardment.

Staff development is one of the more important tasks of ECO-education administration. This chapter has briefly dealt with the more commonly used and most effective means of development. Alert administrators and teachers will doubtless devise others. And, if the philosophy of this handbook has any validity, the "home-grown" means will probably work best.

CHAPTER IX

INTERPRETING THE PROGRAM

Any educational program should be interpreted to the variety of "publics" which it serves. A new or innovative program - which is still the status of ECO-education in many localities - needs an organized and concerted effort in the area of public relations.

As is true in any educational program, excellence of the ECO-education experiences offered to the students is the best single public relations device. Conversely, no amount or kind of public interpretation can make a good program out of one which is fundamentally of poor quality. So, while interpretation may be of importance, the achievement of program excellence far surpasses it in the administrator's scheme of values. Fortunately, both can be carried on at the same time because they feed upon each other.

Wise ECO-education administrators will seek to identify the "publics" which their programs serve and then specifically tailor public relations efforts to each "public".

In general, it may be assumed that any ECO-education venture will require interpretation to, at minimum, the following "publics":

1. The teachers.
2. The students.
3. The parents of students.
4. The tax-paying public other than parents.
5. Other administrators whose programs are touched, in one way or another, by ECO-education.

In certain instances, there will likely be other "publics" to which the administrator owes interpretive efforts. For instance, in the well-known program in the Tyler, Texas, Public Schools the administrator knows very well that one of his "special publics" is the Smith County Youth Foundation, which since 1949 has furnished - for $1.00 per year plus maintenance -

some 300 acres of land and a camp especially designed for year-round use. A major supporter of the Foundation, over the years, has been the Tyler Kiwanis Club, so this civic club is automatically added to this administrator's list of "special publics."

Further delineation of the "publics" to which administrators must address themselves is probably needless; the aware administrator, on the scene, will know - or quickly learn - the identity of each "public" better than any other person.

Lest the foregoing analysis seem too complicated and its implications too time consuming, it should be added that many public relations efforts such as news stories and radio and television "spots", touch many, if not all, of the "publics" set out above. This for the simple reason that news media must, by their very nature, interest the general public.

Among the more common public relations devices used by many ECO-education administrators is what is known in the trade as the "house organ", a newsletter published at intervals by the school administration for its own "special public", parents and children touched by the schools. Some schools publish newsletters directed toward the staff, teachers, administrators, supervisors and the like in the local system. It is good practice for the ECO-education administrator to know the editor(s) of such newsletters and to furnish information for inclusion. In the absence of already established newsletters, it may be necessary for ECO-education administrators to publish their own.

Many ECO-education programs publish a multipurpose brochure directed at a general adult audience. Such brochures are carefully written documents which strike a careful balance between professional and laymen's language, lest they appear to "talk down" or "talk up" to one or another of the "general publics" to whom they must appeal. These publications are designed to serve over a number of years and are usually published in quantity. Given the modern technologies of printing and duplicating, a variety of techniques and costs are readily at hand in most school systems. The ECO-education administrator simply "plugs into" the existing mechanism, making use of the personnel and the machinery already operating in other areas of the school system. In a small system this may be merely a typist and a duplicating machine. In larger and better staffed systems there may even be a publications department offering lay-out and design services in addition to actual printing. The important point here is that practically every school has some publication capability. The ECO-education administrator's role is that of identifying the capability and making use of it.

The entire staff development scheme proposed elsewhere in this handbook obviously has in-service education as its primary motive. The ECO-education administrator who is alert to its secondary values will not ignore its public relations implications. A well planned and executed staff development program will have great public relations significance to the teachers involved and possibly to others.

Much of the interpretation job of the administrator may be accomplished through the use of the traditional news media of the community, newspapers, radio and television stations. It behooves the administrator to identify and become acquainted with the appropriate persons in the media. These persons are most likely to be news editors and reporters but may be columnists, editorial writers, feature writers or, in the case of broadcast media, "talk-show" people. The administrator will maintain continuing contact with all of these persons and will alert them to any newsworthy happening in the program.

In small communities which have only weekly newspapers, it may be necessary for the administrator to determine which area daily newspapers are most read and which electronic media are most often tuned-in.

The administrator will then work with their appropriate personnel just as with local persons.

The authors have one further suggestion coming out of their own experiences, but confirmed by many other administrators. Administrators who can write in the inverted style - climax and all essential facts in the first paragraph - of news-writing are much more likely to get their stories printed than those who write in the traditional narrative style. Reporters and editors prefer properly written material to that which requires a re-write into acceptable form.

A highly productive public relations device is that of planned visitation on the parts of adults to observe the program in operation. Some resident programs actually provide bus transportation and "guide" service to encourage such visits. Inviting selected opinion-makers in the community to visit, possibly with a school system administrator or Board of Education member, is a highly desirable practice. All such visitation consumes what may appear to be a disproportionate amount of the administrator's time and energy. But it doesn't happen every day; it happens usually at the discretion of the administrator; hence, it can almost always be scheduled when most convenient.

There are a few programs over the country which can, with reason, trace their failure to little - or poor - public relations. There are many more which can attribute their continuity and success at least in part to a sustained effort to interpret well a quality program.

CHAPTER X

SITES AND FACILITIES FOR ECO-EDUCATION

Good ECO-education takes place inside and outside the classroom. Sites or locations at which it can take place, then, are of signal importance. Obtaining appropriate places or sites to use for instructional purposes is said by many teachers to be one of the most difficult problems they encounter in getting classes outdoors. While the difficulty is often overstated, and more often a convenient excuse for inaction than a real problem, it does represent an area of concern with which ECO-education administrators must deal.

Identifying appropriate places and sites for outdoor and environmental education studies is an important obligation of the ECO-education administrator. He should expect to be asked "Where can I go to...?" and "Will you arrange for me to...?" several times a week. And, he should be able to provide good answers. Sites are of such importance for ECO-education that they make up one of six sections of the Illinois State Plan for Environmental Education.

This chapter is designed to provide clues and to help administrators needing help with sites and locations. It is not meant to be a comprehensive guide, however. Books (i.e., School Site Development, by Donn Werling, 1973) and films (i.e., Developing the School Site, by William Stapp) have been produced on a single aspect of this topic.

The ECO-education administrator should:

1. Develop an inventory and analysis of potential teaching sites under the control of:
   a. the educational agency
   b. governmental agencies - many of which have sites acquired for education
   c. private agencies and individuals (factories, businesses, farms, arboreta, nature centers, etc.)

2. Gather and disseminate information about the control and availability of these sites as well as the procedures for gaining access to them.

3. Develop procedures for obtaining the use of additional sites, particularly those needed for a specific purpose (such as a limestone quarry needed by a high school geology class).

4. Work to improve the sites that are available, attempting to increase their availability and educational usefulness.

5. Acquire or arrange for the use of new sites which can be made more educationally useful by work, preferably by youngsters and interested teachers and laymen.

In sum, the ECO-education administrator should (1) find out what is available and how it can best be used, (2) disseminate this information, and (3) undertake a site improvement program. Having the ECO-education administrator actually do the scheduling for teachers, a bothersome task, has the advantage of allowing records to be kept and preventing over-use. There are many people or organizations willing to make a site or facility available to two or three classes or groups a year, but no more than that. Some others may impose practically no limits.

The Inventory and Site Analysis

Just to learn what is available for teaching purposes in even a small district or community is quite a task - and it is a never ending one. Things change. But, it is essential that the ECO-education administrator know what is available and where it is located.

The task might be approached from either of two ways: from the standpoint of the curriculum and from the standpoint of the resources. While the former is probably the correct way, examining the curriculum to learn what is needed and then going out to find or obtain the use of it; the latter is probably the way it is usually done, learning what is available and then using it as appropriate.

Resources Under the Control of the Educational Agency

All resources under the control of the local education agency should be readily available for ECO-education. In addition to the sites where the schools are located, many educational agencies control other properties ranging from vehicle garages to farms (one of the most populous school districts in the nation has long owned a farm right in a highly populated area - but, it is little used for field trips). They also own the school buildings and all kinds of service facilities ranging from sewage disposal systems to food storage units. And all of these can contribute to the educational process much more effectively than in the ways for which they were originally designed or acquired.

Perhaps the most obvious of these resources are school buildings and their contents; and it has long been a puzzle to many educators as to why they are used so rarely for educational purposes. Perhaps they are so close at hand to most teachers that they are overlooked, a case of not being able to see the forest because of the trees. But, it is not difficult to find teachers who know little about the building in which they work or how it operates or is managed. And, their students may know even less about it.

The ECO-education administrator should identify the aspects of the school building that are pertinent to the curriculum and the ways in which they might be used to meet the educational objectives. Does the lunchroom provide material for first hand lessons on nutrition, chemistry, sanitation and solid waste disposal? Does the furnace room contain material for teaching about heating systems, combustion and chemical change? What can be done in the building to save energy? Dozens of other examples could be set forth.

Then step outside the building. More first-hand outdoor environmental study probably takes place out there on the schoolgrounds than anyplace else. And that's where it should take place!

There are several reasons for this: (a) it is convenient, (b) it is nearby to the classroom headquarters and (c) it provides (or should provide) a diversity of resources ranging from open space to flowers and automobiles. And very important reasons are that parent permits, buses and other such hinderances are not encountered when working there.

But, teachers don't always know what is on that school site or how they might make use of it. After hearing the question, "What can you do with just a long crack in the blacktop?" one teacher went on to write a multi-page essay detailing the use that could be made of this resource. Another teacher, with only one tree on the entire schoolground, developed enough lesson plans using this one tree to make up a small book.

What is needed is a detailed map of every school site in the community showing the potential teaching resources and providing illustrations of how each of these can be used to meet the school objectives. Seeing that these are available is one of the responsibilities of the ECO-education administrator.

School site improvement presents another challenge to the ECO-education administrator and provides many educationally worthwhile challenges to the teachers and students in the school. Various booklets and references are available on this topic, so it is not necesary to dwell on this subject, except to state that a school site properly developed for teaching purposes (1) enhances the property values in the neighborhood,

(2) makes the school a more aesthetically pleasing place, (3) probably reduces vandalism and (4) helps to hold down heating costs. Money and time spent in school site development, if properly done, pays dividends educationally, socially and economically.

Surveying the school sites, gathering the information and developing improvement plans are not solely the responsibility of the ECO-education administrator, however. More good, and more use, will result if teachers and children at the respective schools take this on as a project, leaving it to the ECO-education administrator to provide guidance and direction. Planning for school site improvement and following through on that plan also must be done by personnel at the site. It is well known that teachers use what they have put together themselves much more than the things that others provide for them.

A few of the efforts to develop school sites for instructional purposes that have received attention are these:

> The Ann Arbor High School at Ann Arbor, Michigan, as told in William Stapp's film, School Site Development.
>
> The Raymond School site in Chicago which inspired Donn Werling to write School Site Development.
>
> The Haslett, Michigan, Schools which have moved a log cabin onto one of their school campuses.
>
> The Renton, Washington, site plans for their Honey Dew Elementary School and their Apollo Middle School.
>
> The Roberts Elementary School, DeKalb, Illinois, which has begun a forty-year development plan for its large school site.

Such efforts usually involve many people and they often involve agencies outside the schools, such as park and recreation agencies which may have control over the unroofed portions of the school site. Hundreds of other efforts have been made by individual teachers who staked out an area for study and developed it on their own.

Governmental Resources

In almost every part of the country there are governmental agencies that have been created to acquire and manage public lands. They control and maintain national parks, state parks, county parks, city parks and neighborhood parks. There are also national forests. There are conservation districts, natural areas districts and many others which have control over land. Some of these agencies have education as a cornerstone of their charter. The County Forest Preserve Districts in Illinois, being among these, are created for conservation, recreation and education. Many recreation or character-building agencies also have lands and facilities which can be used for ECO-education. Actually the amount of land owned by the public to be found in most communities that can be made available for school field experiences is surprising.

Some of the agencies with suitable resources print brochures and booklets to describe their holdings. Others go the next step and actually advertise for educational users. Some of these agencies do more than simply hold land for public use; they also make buildings and personnel available to educators. A few ECO-education directors or administrators in school districts are actually employees of such districts rather than of the schools with which they associate. Several years ago, the educational director of one such agency, the Cook County, Illinois, Forest Preserve District, pointed out that he had charge of the largest outdoor education program in the world and that one single facility they operated is visited by nearly one-fourth million people each year - mostly school children on field trips.

A second aspect of the governmental sites is that of the man-made and managed service facilities. Children should be familiar with jails, courthouses, water and sewage treatment plants, fire and police stations. Personnel in these facilities, recognizing the importance of their public image and the need for young people to know about them, are usually willing to help schools and teachers. Indeed, many of them actually assign personnel to do this and give them such titles as Public Relations Officers or Education Officers.

In most parts of the country, these resources get much less use by teachers and students than they should get. Various reasons can be set forth as explanation; but not knowing about them and not knowing what is there is not a good reason. ECO-education administrators should learn what is to be found in their areas. They should see that it is mapped and described and should make this information known to potential users. Especially, each teacher should know about the resources within walking distance of each school.

Sites Under Private Control

The number and variety of potential sites for educational use in private hands is also great. Among these might be included a camp operated by a church, a power plant, a fabricating plant, a computing center and on and on. It might even include historical sites, printing presses, collections of antique furniture, art and automobiles. The variety is vast and it can all teach.

Inventorying these sites, these places and these things that can be examined, studied and scrutinized by young people and subsequently disseminating this information is a formidable task. It is more than any ECO-education administrator can or should handle alone.

One approach used from time to time in the northern Illinois area in which the Faculty of Outdoor Teacher Education at Northern Illinois University and nearby school districts wanting such information have cooperated, has been through a workshop course designed specifically for the teachers in that district. In one such effort, 59 teachers and three NIU faculty worked to find "all" the community resources and ascertain how they could be best used by the schools. The participants enrolled for credit in a semester-long workshop, and once they had been oriented to the reasons for using outdoor and community resources in their teaching, they developed a data gathering sheet and a guide. Then they listed the potential sites (factories, parks, governmental agencies, hospitals, etc.) and assigned teams to visit each one. They went there to learn what each place was like, what it contained and what educational values it might have. Of course, they found that many of the sites they visited were either unavailable or unusable; but, they found several hundred in their school district that were appropriate. Compiling this information was a big task which fell upon the shoulders of a committee led by the district ECO-education coordinator.

This is suggested as just one way to learn what sites and resources are available. ECO-education administrators wanting to undertake a similar project should investigate the possibilities with a committee of their teachers and with a nearby college or university. Many colleges have a workshop course under which such activities can qualify for credit.

Dissemination of Site Information

Various approaches are used by ECO-education administrators to inform staff members about the sites that are available, what there is at each, or how they might best use them. The project described above resulted in a thick guidebook to the use of the resources in that community. (It has recently undergone updating and revision.)

Some ECO-education administrators maintain card files and distribute seasonal newsletters in which they describe a few of the most timely and interesting sites and point out what can be done there at the time that fits the school's ongoing curriculum. Others use a less formal approach and simply show-up from time to time to talk to teachers or try to spread the word on institute or in-service days.

The important thing for teachers to know is that there is a site, location or resource in the community that can be helpful in almost anything being taught and that the ECO-education administrator knows about it and will help them to arrange for its use.

Site Improvement

From time to time the ECO-education administrator may have opportunities to choose from several sites or possibly even acquire (through purchase, rental, or gift) possession of a particular area for the long term use of the schools. Those in this unusual position, should turn to Appendix I which deals with what a large number of administrators considered to be essential and desirable on a site to be used regularly for ECO-education purposes; whether on a day or resident basis. Many of the items considered essential can be provided through a good site improvement program. Some cannot, however.

Site improvement should not stop with the school grounds and other school facilities. The ECO-education administrator, as an official representative of the schools, should inform others of school needs and the things that might be done to make the available sites and facilities more usable.

A forest preserve may be of little use to school personnel because it lacks toilets or restroom facilities, something that would be provided very quickly if the message were ever carried to the forest preserve director or governing committee. Educational buildings have been constructed at a number of sites by the park or forest agencies because school people told them their needs. This occurred several years ago at Crystal Lake, in McHenry County, Illinois, in which the park district erected a large building largely for the use of the schools. In Winnebago County, Illinois, the Forest Preserve District has gone to great expense to provide similar facilities once the educational agencies informed them of what was needed.

On the other hand, there is concern about redundancy in facilities and sites and one must wonder about attempts by schools to purchase sites and facilities for outdoor education programs. When such sites cannot be made available in any other way, this might be appropriate. But, as a general rule, it is clearly better for educational organizations to use the resources owned and managed by others than to use their own funds to acquire them.

Summary

Next to working directly with children and teachers, sites are the most important aspect of the ECO-education administrator's job. Those who find few sites available for the use of their schools, probably don't know their communities very well. Those who know their communities find the sites and arrange to have them available.

But, it doesn't stop there. The good ECO-education administrator works to improve the school sites and to see that needed improvements are made at the various sites and locations throughout the community, thereby increasing their usability.

Facilities for Resident Programs

In the more than three decades since "school camping" began in this country, school administrators have devised myriad, and sometimes ingenious ways to acquire the use of camps for educational purposes. In the 'forties and 'fifties the plaint was often heard, "We could start a program, but we don't own a camp." Practice in many school districts has clearly demonstrated that schools do not need to own facilities in order to carry on a resident program. Indeed, it is probably more economical, given the high costs of land and construction, not to own facilities, but, instead, to borrow, rent or lease existing facilities only for the period of time needed to service the resident program. Many owners of children's, and other, camps are willing and eager to allow schools to use their camps. Because during the school year, most children's camps get little or infrequent use and because many fixed costs continue twelve months a year, it is clearly to the economic advantage of the owners to rent or lease the property to any user, including schools.

Rent or lease arrangements vary greatly from camp to camp and from school to school. Known to the authors is one agency camp which is used by the school district in which it is located at no charge whatever. At the other extreme are the many private, agency and government-owned camps which charge a weekly or monthly fee, some of which are unquestionably on the high side. However, many fees are negotiable. Thus it behooves the ECO-education administrator to survey all the camps within a reasonable distance of the school(s) to be served and to select the most appropriate facility.

The choice of the camp is not as simple as finding the accessible camp which charges the least. First of all the administrator must lead all the professionals to be involved in the program in deciding the program-content of the projected resident experience. For instance, if the projected program is to place high emphasis on small-group experiences, then housing and dining room table size may be critical factors. On the other hand, if a high emphasis is to be placed on field experiences, focused on, say, the biological sciences, housing and dining facilities may take a subsidiary place and richness of flora and fauna may become critical. In any event the administrative principle is clear: *Program planning must precede facilities selection.* Otherwise, the planned program may be very difficult, perhaps impossible, to implement. Others have learned this principle by the bitter road of experience. The wise ECO-education administrator will profit by heeding the experience of others.

There are in print a number of very helpful documents to assist in this search for appropriate facilities, which have been included as appendices to this handbook. They are:

1. A summary of the findings of a study, "The Desirable ECO-Education Site," referred to previously.

2. The body of the most extensive site evaluation form known to the authors, the Bellevue, Washington, Public Schools, *Outdoor School Site Evaluation Booklet*.

In addition to these several guides to site selection the administrator is well advised to inquire among local, experienced camp directors as to which governmental agencies have jurisdiction over camps. The regulations of such agencies, often having the force of law, as health departments (state and local), departments of social services and, increasingly, the Environmental Protection Agency, must be heeded. Certain school laws also apply. In this case, the school board attorney or legal advisory serves as a source of information.

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CHAPTER XI

RESOURCES AND MATERIALS HELP FOR ECO-EDUCATION

It is doubtful that any curriculum specialist or program leader has more help available by way of resources and materials than the administrator of the ECO-education program. Each state, county or community seems to have agencies and organizations with obligations for conservation and environmental education. And, the people in these organizations generally feel that the appropriate way for them to meet their educational obligation is to make available (1) instructional materials, (2) facilities and (3) people to work with teachers and students outdoors in the field. The difficulty, however, is that so many administrators never seem to come in contact with these resources.

Printed Materials

Some years ago a committee composed of outdoor and environmental education leaders from throughout the nation was formed to review, analyze and evaluate the printed materials then available for environmental education. This committee found very little in the way of "student use materials" or materials that could be placed directly into the hands of the student. It concluded that the lack of such materials was one of the great deterrents to environmental and conservation education. One doubts that such a committee would come to that conclusion today. A vast quantity of materials of this kind has since been produced and made available. Surprising, however, many teachers and administrators don't know of its availability.

It is quite clear that the best publications for ECO-education programs are those that are written and produced locally and which deal with conditions, situations and issues close to home. The best results are usually attained when teachers and students use printed materials they design themselves to fit their own interests, needs and programs. The impact of a chapter on the ecology or the trees of the wood-lot behind the school is much greater than one written about the ecology of similar things in far away places, even though the ecological principles with which they deal are similar or identical.

Just as with many aspects of History, Government and Social Studies, most ECO-education resources materials deal with things that are someplace else and of another time. The reason for this is obvious. Locally oriented and produced materials don't sell very well - the market pool is too small.

However, some efforts have been made lately on a statewide or area basis to develop materials that are more locally-oriented and all administrators should know about those that are applicable to their own situation. Some of these materials might just fit!

In Illinois, for instance, such efforts have resulted in a number of very useful items. One of them is the Illinois Conservation Curriculum Guide, a 70-page guide that focuses on Illinois wildlife and environmental education. It contains ditto masters, student reading materials, suggestions for teachers and problems and activities for students that are to be done both inside and outside the classroom. Although it expresses the point-of-view of its sponsor, the Illinois Wildlife Federation, it does represent a major effort by a private organization to help meet the need for environmental education materials in Illinois.

Another Illinois example is the Environmental Education Handbook for Teachers. The Illinois Office of Education wanted to inform teachers about what they could or should do regarding environmental education (it is mandated by law in Illinois) and so produced and distributed thousands of copies of this handbook. It contains the "State Plan," suggestions and tips for getting a program under way, curriculum suggestions, sample units and descriptions of available help. The thrust of the environmental education program set forth here is for students directly to experience the resources, conditions and issues they are studying.

An earlier effort in Illinois resulted in a series of six publications for teachers on resource management. They deal with the soils, forests, wildlife, water and fishes etc., of Illinois. More recently, the Illinois Institute for Environmental Quality got into the production of state-based materials by sponsoring the publication of Werling's School Site Development and Stehney's Environmental Curiosity Samplers I and II (Sampler I deals with teaching resources for environmental education in the Chicago area, and Sampler II deals with those outside metropolitan Chicago).

These Illinois materials are mentioned, not because more is available in Illinois than elsewhere but it illustrates the point that locally-oriented materials have been produced in some states.

Title III (now Title IV) of the Elementary and Secondary Education Act has been and continues to be a big producer of locally-oriented ECO-education materials. Many Title III ESEA environmental and outdoor education projects have focused on the development of curriculum and resource materials for a particular part of a county or a school district, or whatever area they serve. Some of this material is excellent and has received extensive testing and use where it is produced, but remains unknown outside that area. Much of it does not see the light of day once the project no longer receives federal funds.

In a few instances such materials have been widely disseminated and made available. For example, the materials produced by the Center for the Development of Environmental Curriculum at Willoughby, Ohio, were picked up and published for statewide distribution by the Ohio Department of Instruction. Recently, some of the ESEA programs that have produced such materials have been "validated" and funded for a fourth or fifth year to disseminate the materials they produced throughout the state or nationally. One such outdoor education project in Illinois is known as the ECO-center at Thomson. Three other Illinois ESEA ECO-education projects have been approved for validation and have been funded to disseminate their materials to other schools.

The point is simple: ECO-education administrators should know what materials have already been produced in their own states, counties or locally and build on them. There should be no more wringing of hands and gnashing of teeth that there isn't good ECO-education teaching material available. There is plenty of it!

Sites and People

Just as with printed materials the people and sites that might be used by ECO-education programs that are closest to home are likely to be of the greatest value and impact. There is doubt that the speaker who is brought in from the far end of the state or nation is going to be any more effective than one who lives and works nearby. Certainly, one needs to be a bit choosey when selecting local people to help or to speak. But, speakers have been known to travel several hundred miles to address a group on some ECO-education topic and do little good. At least the person who works nearby can use nearby examples to illustrate his point.

The same is true with respect to places and sites. There are programs in which students are transported hundreds of miles to do what they might have done as well, possibly better, at home. There is much to be gained through travel, but teachers must be clear on the reason for making the trip. If travel is the purpose, fine; but, if it is to develop an environmental concern, then extensive travel may be an inefficient way to do it.

With these comments in mind, a listing of agencies and organizations that are available in most places may be helpful to administrators of ECO-education programs. And, the most important group is the last one on the list.

National

The administrator of ECO-education programs should be familiar with the national organizations and federal agencies that are concerned with environmental and conservation education. Many of them provide services and materials that can be very helpful. Many of them have regional chapters or offices and personnel that are near at hand in many communities.

Many of these national groups are rather specialized and interested in a very specific aspect of ECO-education. This may limit their value to educators in one sense, but, by being specialized they should be able to provide a great deal in the specialty.

ECO-education administrators should join one or more of the national volunteer organizations - doing so tends to broaden interests and perspectives.

Among the governmental agencies that ECO-education administrators should know about are (a) the Environmental Protection Agencies, (b) the U.S. Departments of Agriculture, Interior, and Energy and (c) the Army Corps of Engineers. These and similar agencies produce thousands of titles each year and hundreds, even thousands, of people located throughout the nation who will help. Interior's National Park Service and Agriculture's Forest and Soil Conservation Services have made great effort in ECO-education the last few years. And a major concern of the new Department of Energy is that of education programs fostering the conservation energy.

It should also be quite clear that it is not all a one-way road. They can provide help to administrators and teachers, but they also depend on teachers and administrators to provide them a way to get their message - which may or may not be in the public's best interest - to young people.

And it is no different with respect to the private organizations which operate on a national basis. Each has educational programs that can complement those of the local school and their materials and people are often available to assist whether the need has to do with teacher education, curriculum, site development or teaching materials. The list of such national organizations published by the National Wildlife Federation requires many pages and seems to go on endlessly. The range of organizations included extends from the National Audubon Society to Common Cause, to the Population Reference Bureau, to Defenders of Wildlife.

But caution is advised. Educators must know what each is, what it has available and what it's interests and biases are. Each can be used where and when it seems most appropriate, while recognizing the limitations of biases and self-interests.

State

Perhaps the most important liaison for the ECO-education administrator to develop at the state level is that of the person in the State Department of Education charged with Conservation or Environmental Education. In some cases this person may be identified with Science, Physical Education or Recreation. The administrator cannot be sure how much help the environmental education unit in the State Office of Education in Illinois, or Ohio, or New York can be to the local ECO-education administrator, but it is certain that such liaisons have to be developed and nurtured. This person or office may be called on for help with in-service education. for materials and the like. But, one shouldn't always expect to get help; they are spread very thin.

Another liaison for the administrator to nurture and develop is the one with the faculty in environmental or outdoor education (or environmental studies) at nearby universities and colleges. Perhaps these are really county resources as so many are so close by. It may be wise to make a call to these people and arrange to meet and exchange views. Most of the people in these fields want to be of service; most are rather pragmatic and down-to-earth. But one should not be surprised to learn that calling on them is a two-edged sword. Callers may be asked to provide the perspective of "one who is on the firing line." Observers continue to find people in responsible ECO-education positions who haven't met their counter-parts in the nearby college - people with whom they should be working on a close and cooperative basis. Colleges may be equally at fault.

Most states now have an agency or several agencies specifically charged with one or more phases of environmental protection. These might include the Department of Conservation in one state, a Department of Natural Resources in another or an Environmental Protection Agency in another and a Pollution Control Board in another. These agencies research, monitor, regulate and enforce what we "put-in" or "take-out" of the environment. The emphasis varies, of course, from state to state. In some states they may be most concerned with soil conservation and with soil getting into rivers. In other states, or at other times, the emphasis may be on air or water or noise pollution.

Historical sites and open lands for recreational and educational use may be the emphasis of another agency. Wildlife interests may carry the load elsewhere.

But, one thing these agencies all have in common is the recognition that whether they survive and flourish and what they can achieve depends upon public attitudes and concern. Hence, they are interested in programs in the schools. Administrators should know of these state agencies and organizations and know about their people and work. Schools should be users of the environmental services and facilities they provide and they should let these agencies know how they can be of help. The demand for such services usually determines what help they can provide.

County

As rich as the resource agencies and organizations may be at the state and national levels, it is at the county level where administrators find the real abundance of help that should be known to them. There is little that is more important for administrators to do than to get out and learn what is to be found in their counties - most of which is available to the teachers and students of the school districts by either bringing the resources to the classrooms or taking the classrooms to the resources. This takes time and work!

Perhaps this is why an ECO-education administrator should expect to stay on the same job for several years. People may be found in the field who, as a result of a lifetime of experience, have built up mental files concerning who has done what, where everything can be found and what is happening or is being proposed. They know whom to call for a farm trip, or where there is a clear stream or whatever else is needed and they know the pitfalls. But others who are new at their positions, may be in completely new localities, must work to learn what is out there.

It is the view of the authors that the ECO-education administrator should contact the county school administrator (titles vary from state to state) to learn this person's views on ECO-education. Perhaps this person is astute enough to recognize the importance of field experiences to ECO-education and is willing to help but needs the liaison the administrator can provide with the schools. Perhaps he will even help to form a countywide association that will bring together people like school administrators, resource management technicians, teachers and representatives of the environmental organizations on a regular basis to review what is needed and what can or should be done. Furthermore, such groups containing members who report back to constituencies often have a great deal of political power.

County associations have three fundamental things with which they should deal other than providing opportunities for people with similar interests to interact. The first of these is to update themselves on the resources in the county and environmental education. The second is that of providing directions for ECO-education in the area and of identifying resources and the third is that of actually providing services, possibly even operating an ECO-education facility.

The people on the council should be representative of the ECO-education interests and the agencies of the county. In some places, this means the council could be quite large. In fact, in some heavily populated areas, a section of a county might be more appropriate as an area served by a council. Activation of this council will ultimately reveal many of the educational resources that are available; but until the council gets going, the ECO-education administrator will have to find them.

In doing this, the administrator should not overlook the County Forest Preserve, Park, Conservation and Soil & Water Conservation Districts. Nor should the Planning and Zoning Councils or Boards or the County Courthouse offices be overlooked. Above all, the resource agencies such as the Agriculture and Home Economics Extension Service, the area forester and the biologist should be included. People in business and industry who are interested in education may be helpful. Business and industry have taken some hard knocks lately from the environmentalists, some of which may be deserved, but many business leaders are truly concerned about environmental problems and want to help with school education programs.

Local

Much of what has been written about resources at the county level applies to resources at the local level, in the home territory of the ECO-education administrator. In ECO-education everything is educational material and everything teaches. This fact is too important to overlook.

Finding the resources and determining how they can best be used is a formidable task even on the local level. Attempts at this by one person, on a hit and miss basis have been made and have resulted in a degree of success. Systematic attempts to do this in which several teachers in one school district enroll in a workshop to try to get a handle on "what's available and how we can use it" are surely more productive.

A very useful vehicle for achieving this end is a school district ECO-education committee of citizens, teachers, administrators and students. The committee might take on a project to learn how the community and all of its contents, situations, issues and problems can best be used to educate. A number of school districts have developed resource directories of places and persons of value.

One thing most often overlooked in such efforts, perhaps because it is so very close at hand, is the school itself. The school should be a good example (it is always an example) in education and no one should know this better than the ECO-education administrator. Hence, how the school is managed to minimize its deleterious impact on the environment should be familiar to all students and teachers and it should be an integral part of the curriculum.

Summary

That no area or subject exists for which more help is available than environmental, conservation, and outdoor education bears repeating. National, state, county and local organizations, agencies and resources are abundantly available and should be used. It is an important responsibility of the ECO-education administrator to insure that they are used effectively.

CHAPTER XII

HOW GOOD ADMINISTRATORS BEHAVE(1)

If the aim of education is, indeed, that of modifying the behavior of people, then the central aim of this book is to help modify the behavior of administrators of ECO-education programs. The "bottom line" in this modifying process is "how this good administrator actually behaves!" In the opinion of the authors, the following characterize the way *good administrators* behave:

1. *Good administrators are committed to and practice the principles of democratic leadership*. On a line diagram of leadership which ranges from abdicratic at one end to autocratic at the other, the good administrator cherishes both theory and practice near the middle at the locus of democratic administration. Good administrators hold frequent meetings and consult frequently with all concerned. They seek in-put from children as well as adults, from lay-persons as well as professionals, and from dispensers as well as from recipients.

Despite many pressures to the contrary, good administrators make few unilateral decisions. Ideally, they would make none!

But, we do not live in an ideal world, nor do we deal with ideal people. And unilateral decisions, because of circumstances beyond the administrator's control, must occasionally be made. Even in such instances good administrators do not simply pluck a decision from thin air or from their own prejudices. Instead they will ask questions like these: What is consistent with what I know of the people concerned? How would other administrators I know and respect react in this situation? What does common sense dictate? What do my experience and my own feelings tell me to be right, given all the circumstances in this situation?

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(1)Much of the material in this chapter was suggested by two graduate students, Cathie Sandell and Clare Magee at Northern Illinois University.

Administrators being characterized here must eschew "one-person" rule and leadership. They must diffuse both authority, initiative, leadership and their concurrent responsibilities throughout the group. They need to grow and accept, striving to understand views quite different from their own. At the same time, they need not submerge their own views and deeply held beliefs in order to be perceived as a democratic leader. Only mutual trust will guarantee that the leader's views and beliefs are not over-weighted as the group reaches decisions.

Further, this democratic leader will not always play the leadership role. This leader will know when to let someone else, co-worker or student, "take an idea and run with it," temporarily assuming a followship role for himself.

2. Good administrators are people-oriented. Groups, regardless of size, are made up of people, each of whom brings something unique to the group. Administrators who seek maximum group effectiveness must recognize, accept and value this fact if they hope to achieve growth in the individual and in the group - to the ultimate benefit of the program.

The first person the administrator must know, accept and value is him/herself. "Know thyself" is as sound a principle in the current society as it was in ancient Greece. This self-knowledge is the beginning of knowing others.

3. Good administrators view themselves primarily as facilitators rather than as "bosses." They facilitate a humanistic climate for all concerned whether professionals, students, parents or others.

Good administrators use their positions to make possible the achievement of group-determined goals. Sometimes they will positively - and happily - assume the errand-runner role because decisions made in a diffused leadership pattern will often lead to, say, the need for materials and procedures not listed in the "administrator's handbook." Facilitator-leaders will frequently be forced into roles as contrivers in which they will have to find answers to such questions as:

a. How do I buy picks and shovels for a work project when said things are listed (if at all) under "Maintenance" instead of "Instruction" in the Central Stores Warehouse?

b. How may I safely and responsibly arrange transportation for a group when the trip they are planning was not planned, and budgeted, last spring?

Such problems are legion, and they call upon the ingenuity and understanding on the part of administrators. But, such problems are solved daily by administrators who accept and relish the facilitation role. And, there will probably be problems which defy solution. Facilitator-administrators do not simply write off these problems, nor do they avoid similar difficulties in the future. Instead, each problem - solved or unsolved - is seen as a learning experience that will make the next problem easier to solve. Each problem - solved or unsolved - gives the thoughtful administrator further and deeper insight into the problem solving process itself.

Thus, each problem becomes two opportunities for the facilitator administrators. It provides an ingenuity test, and it provides further practice in problem solving.

4. Good administrators are, or must become, expert in public relations. Programs which take learners, be they primary-grade children or graduate students, away from traditional settings for education demand special efforts. An illustration of the nature of this problem came when an ECO-education director was once introduced to a service club luncheon audience with these words, "You will be listening to a man, who, after this country has spent over 100 years and billions of dollars trying to get all the children in school, is now telling us that we must take them out!"

A great deal has been learned about educational public relations since the ideal of universal public education was proposed, and much remains to be learned. Good administrators are constantly alert for opportunities to communicate and interpret the ECO-education program to audiences.

Many otherwise good programs have failed because of the apparent assumption: "This is such a good idea that no teacher, administrator, parent, or citizen can possibly fail to see its values." It just doesn't work that way!

The particular devices that good administrators use in public relations efforts have been delineated in a special chapter in this handbook and need no repetition here. Suffice it to stress that non-traditional programs, such as ECO-education programs surely are, require special and constant interpretation.

5. Good administrators as projected herein are joiners and enthusiastic participants in relevant organizations and ad hoc movements at the local, state and national levels. They will join organizations, probably several, at all levels; keeping in mind that the more nearly local the organization the more likely it is to deal with problems of immediate relevance to the administrator concerned.

But, regardless of how many organizations they join, or whatever their special interests or geographical spread, it behooves administrators to participate enthusiastically. This is one of the most effective ways by which new and stimulating ideas may be gained and pumped into a program.

Furthermore, good administrators who feel qualified will seek leadership roles in whatever organizations are chosen. Leadership on a larger-than-local scene has three distinct advantages: (1) it benefits the administrator's own program, (2) it raises the self-image of the administrator, and (3) it broadens the impact of the program.

6. Good administrators must be endowed with, or quickly acquire, the most uncommon quality: common sense. Common sense, from the administrator's point-of-view, is something which practically defies definition, but which is immediately, and frequently unanimously, recognized. Dictionary definitions, "sound, practical judgement," or "normal, native intelligence" almost suggest that one either has it or doesn't have it and that it therefore is not a proper subject for education as it cannot be taught.

Yet, years of administrative practice and even more years of living in the real world have clearly demonstrated that people, including administrators, do become more common-sensical. It can be learned; therefore, it can be taught!

While the authors make no claims to being expert teachers of common sense behavior, they want to venture the following suggestions as to how administrators can improve their ability to act in a common-sensical fashion:

a. Commonsensical administrators will surely model their behaviors after those of one or more administrators who have demonstrated, preferably over time and in several different situations, that they do indeed act in a commonsensical fashion. These models' administrative behaviors are, pragmatically, known to work well. The neophyte administrator will observe, question, probe, discuss and study the actions of the models.

b. Frequent conferences with other ECO-education administrators should be sought. These may consist of quick telephone calls or they might be rather frequent or regular meetings in which several administrators "brain-storm" the subject. If the problem at issue allows more time, letters to others in similar situations may help.

While other ECO-education administrators will most likely be dealing with highly similar problems, and therefore, have at hand immediately transferable experience, the beginning administrator may not be aware that successful administrators in other kinds of programs have also had relevant experiences. It may well be that others in the school system who have demonstrated exceptional administrative ability can become a source of commonsensical advice.

c. Reading about the administrative experiences of others is also a good source of common sense practices. The literature in ECO-education administration, admittedly in short-supply, should ultimately rest within easy reach of the ECO-education administrator's desk and should make frequent trips to that desk. This is often the only feasible way to share the experience of remote people and programs.

d. The commonsensical ECO-education administrator will know and act upon the wisdom of the ancient who said, "He who makes one mistake and learns nothing, makes two mistakes!" All administrators make mistakes; every person makes mistakes. Thoughtful analysis of mistakes help to prevent similar ones in the future.

e. Commonsensical ECO-education administrators will reserve some time in each day and quiet places in which to THINK. This is the time they sort out problems, judge priorities and select from alternatives - all of which go into commonsensical administration.

7. Good Eco-administrators will not always be the leaders. They freely and encouragingly allow others to lead out on ideas which may have come to others. The good administrator will also frequently delegate both leadership responsibilities, as well as the necessary authority, to select staff members for several good reasons:

The person has qualities which uniquely qualify him or her to accomplish the task at hand, or
The person selected, in the opinion of the administrator, needs the leadership experience.

Summary

In total, good ECO-education administrators must behave in the ways their audiences expect and want them to behave consistent with getting the job done. They recognize that many people have a contribution to make to the ECO-education program and they work to secure such help using the best practices of democratic administration.

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CHAPTER XIII

STARTING A PROGRAM

An ECO-education program is begun very much like any new educational program is begun. Ideally, the steps in that process consist of the following somewhat sequential processes. (Somewhat because the strict order is less important than the substance of the process and because, in actual practice, two or more of the steps may go on at the same time.)

1. A person, or a small group of people, senses a need for an ECO-education program. In practice this person (or group) is almost always already employed in the school system for which the plan is being made. The "idea-person" or a leader of the small group often becomes the administrator, if and when the plans are activated.(1)

2. The idea is legitimized by involving relevant key people in the school system and the community. Identifying such relevant key people is a major task. So is enlisting their support. For instance, this is the point at which support of the school administration, either the Superintendent or Curriculum Specialist, is critical. Certain other persons in the system and the community need to become involved early on in the planning process. Just who these people are in a given school system and its community will be readily apparent to local school people. Except for key administrators, status and titles mean much less than personalities, dedication and energy, which are the reasons they are relevant key people. Typically, this group of relevant people - or some of them - become the ECO-education Committee, preferably an official committee of the school system so designated by the school administration.

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(1) Donaldson, George W. *The "New" Director of Outdoor/Conservation Education*. Oregon, IL. The Taft Field Campus. 1969 (Mimeo)

(Sometimes steps 1 and 2 are reversed. For instance, in Illinois, by request of the Illinois Office of Education, each school system is expected to appoint an Environmental Education Coordinator who typically, then, forms a committee. In less structured situations it is probably most productive to follow the sequence suggested for the simple reason that such a sequence stems from the grass-roots and is a response to a locally felt need.)

3. Goals are established and put into clear and concise written form. If the program being planned is to be truly a people's program, here is the point at which broad scaled community involvement is to be sought. It may be that the schools already have a lay advisory group, or better still a lay curriculum committee. In either case it is probably better to work through an existing group than to form a special committee. In certain instances, the reverse may be true; only local people can make that determination.

Goal setting should address at least the following questions:(2)

"a. What are the available resources - materials, places and people? (perhaps an inventory of each would be useful).

'b. What do you wish the children to know or be able to do after instruction? (examine existing materials and other programs for ideas).

'c. What are some local issues and alternatives which you may use to help students clarify their values and behaviors? (involve students in local issues and problems)."

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(2)Bedwell, Lance (ed) Illinois Environmental Education, Handbook for Teachers. Springfield, IL. Illinois Office of Education. P. 34.

Goal statements tend, unless extreme care is taken in their formulation and writing, to go off into a "never-never" land of wild and dreamy expectations which can neither be achieved nor evaluated. While the authors are not totally convinced that behavioral objectives, as presently conceived, are desirable, it must be admitted that their use has brought many goal writers closer to reality.

A few attainable, clearly stated goals is the objective of this phase of planning.

4. Explore more formally than in earlier steps the concrete means by which the goals may most efficiently be implemented. Or, as stated in the Illinois Handbook previously cited, "Establish the curriculum, including the philosophy, concepts, processes, learning models and guidelines."(3) Next to actually putting the program in place and making it function, this is the most difficult step. It calls for many hours of reading, consulting, discussion, visitations, as well as individual soul-searching. But it also, when well done, results in a guiding document which is essential to a productive program. Costs of starting and operating the program must be estimated at this stage of planning.

Broad participation is a must in this step as in others. The wise leader involves many teachers and lay people in this statement of ways and means.

5. Commitment to action by the relevant authorities is a logical next step in the planning process. At this stage the innovators have in hand, in writing, a clear statement of goals as well as of ways and means

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(3) op. cit. p. 3.4

of implementing them - a program on paper. If the program is at all elaborate (What is elaborate or not-so-elaborate varies from school system to school system so greatly that no attempt is made here to define the term. Besides, local professionals and lay people will know.) it will have to go through the customary channels for approval of new curriculum ventures. This usually means securing the approval and, it is to be hoped, the enthusiastic endorsement of the Curriculum Director and, through that person, the acceptance of the Superintendent.

The Superintendent, in turn, will recommend it to the Board of Education, along with an estimated start-up and operating budget. Once the Board's approval has been given, the program may begin.

6. *Begin a long-term continuing in-service education program targeted at all professionals whom the program will touch*. Procedures involved in this step have been developed in some depth in the Chapter entitled "Staff Development," so elaboration is not needed here.

7. *Develop a plan for evaluation of the program in terms of the previously stated goals*. This, too, has been detailed in a separate chapter. Suffice it to state here that evaluation must be systematic and continuous.

8. *Begin the program at the appropriate time*. If planning, curriculum work and staff development have gone according to plan, this should prove to be *the* truly exciting and professionally satisfying step in the process. It is the culminating step. It should go well if it has been planned well.

This is the stage at which rather intensive public relations efforts are in order. The community has something new of which it can be proud. The community deserves to be told about it and doing so can only bring benefits to the program.

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APPENDICES

APPENDIX I

A SUMMARY OF "AN INVESTIGATION INTO THE DESIRABLE ECO-EDUCATION SITE"

The Study

Two assumptions were made by the researchers:

1. That programs in ECO-education (environmental/conservation/outdoor education), by their very definition, require the use of tracts of lands other than schoolyards and nearby (in-town) sites.

2. That the desirable characteristics of such a tract of land are not significantly different whether they are used on a day basis or for residential purposes.

The investigators, after an examination of related literature and conferences with knowledgeable colleagues, devised an opinionnaire containing thirty-eight characteristics. A modified Likert scale was used in the body of the opinionnaire to elicit reactions from jury members as to the desirability of each of the thirty-eight items (E-Essential; HD-Highly Desirable; D-Desirable; S-Satisfactory; U-Unacceptable). The opinionnaire was mailed to jurors selected from Leaders in Outdoor Education. Persons whose titles suggested an intimate involvement in either environmental, conservation, or outdoor education, or who were known to the investigators to have such an involvement, were selected.

A total of 247 persons in the United States and Canada were queried as to their willingness to participate: 194 persons (78 percent) responded in the affirmative. Of those, 163 actually did return the rating sheets. One hundred thirty-eight (71 percent) responded by the cut-off date set by the investigators.

The Findings

No one of the 38 characteristics was seen by all respondents as "Essential"; however, more than half the jurors judged two characteristics to be "Essential." These were:

> Have adequate supply of potable (good) water. (104)
>
> Have soils and topography for best care of effluents (Kitchen and bathrooms). (83)

On the other hand, no one of the characteristics was deemed "Unacceptable" by more than twenty-three of the jurors. "Be near a major highway" drew twenty-three "Unacceptable" votes, while thirteen of the respondents reacted negatively to "Contain a beach area suitable for swimming and boating." The investigators judged, by notations written on some of the opinionnaires, that safety factors may have constituted the motive for these negative reactions.

Point Values

Point values were derived by the following process:

1. Multipliers were applied to raw scores as follows:

Essential =	4 points
Highly Desirable =	3 points
Desirable =	2 points
Satisfactory =	1 point
Unacceptable =	0 point

   This process yielded "weighted scores."

2. Then each weighted score was divided by 138 (number of respondents) to derive a "point-value" for each item. The weighted point-values (in order of value) are detailed in Table 1.

Responses to an opinionnaire item having to do with the desirable size of an ECO-education site, were much less definite than those having to do with descriptive characteristics. Indeed, only 102 of the respondents indicated a numerical response (Table 2).

Summary

The 138 jurors placed twenty-nine characteristics at or above the point value of 2 (Desirable). Only nine characteristics fell below a point value of 2. None was below 1 (Satisfactory).

TABLE 1

SITE CHARACTERISTICS

The Desirable Site Will:	Weighted Score	Point Value
1. Have adequate supply of potable (good) water.	504	3.7
2. Have soils and topography for best care of effluents.	464	3.4
3. Be accessible during all seasons.	460	3.3
4. Be buffered against encroachments by commercial developments and resorts.	455	3.3
5. Contain at least one "unmanaged" succession plot.	401	2.9
6. Contain a variety of terrain; level land, slopes facing north and south, outcrops.	396	2.9
7. Be close to all-season public road.	394	2.9

The Desirable Site Will:	Weighted Score	Point Value
8. Contain a "wild" area.	394	2.9
9. Contain a rich population of animals native to region.	391	2.8
10. Contain a lake, pond or stream.	376	2.7
11. Be removed from contaminants, odors, and sounds of civilization.	369	2.7
12. Contain a typical-for-the-area climax forest.	367	2.7
13. Include an area suitable for cookouts and sleepouts.	355	2.6
14. Contain a waterfall or rapids.	353	2.6
15. Contain a stream of unpolluted water.	350	2.5
16. Contain a bog, marsh, or swamp.	349	2.5
17. Contain a grassland or prairie area.	343	2.5
18. Contain a woodlot.	341	2.5
19. Be close to town or village	331	2.4
20. Include a hardwood area.	324	2.3
21. Have a completed soils map.	319	2.3
22. Include a coniferous area.	318	2.3
23. Have easy access to services: telephone, oil, gas, electricity.	315	2.3

	The Desirable Site Will:	Weighted Score	Point Value
24.	Be adjacent to environmentally-managed public lands.	308	2.2
25.	Contain a selection of edible plants.	303	2.2
26.	Contain stream or road-cut exposing top-soil, sub-soil, parent material.	301	2.2
27.	Be near a hospital, clinic, and/or physician.	293	2.1
28.	Contain a selection of harmful plants.	274	2.0
29.	Include a historical site (pre- or post- white man settlement.	268	1.9
30.	Contain planted forest of trees recommended by appropriate authority.	268	1.9
31.	Contain an area suitable for gardening.	268	1.9
32.	Contain a quarry, gravel, or borrow pit.	259	1.9
33.	Contain an erosion area.	257	1.9
34.	Include an area suitable for picnics.	254	1.8
35.	Include an abandoned farm.	248	1.8
36.	Contain areas that can be converted by management into sugarbush or other forest product industry.	237	1.7

The Desirable Site Will:	Weighted Score	Point Value
37. Contain a beach area suitable for swimming and boating.	210	1.5
38. Be near a major highway.	170	1.2

A number of respondents took advantage of an item in the opinionnaire which asked: "Are there desirable features not included above? If so, please add in the spaces below." The additions, which drew more than one response, are tabulated below:

The Desirable Site Will:

Frequency	
7	Contain areas that can be managed, repaired planted by students.
4	Have available history of area.
3	Have a variety of ecological sites.
3	Be near cemetery.
2	Contain rocks and cliffs for climbing.
2	Have winter snow cover.

TABLE 2

SIZE OF SITE

Preferred Size	Number of Respondents
200 acres	50
150 acres	16

Preferred Size	Number of Respondents
100 acres	20
50 acres	8
More than 200 acres	3
300-400 acres	4
10,000 acres	1

The site should almost certainly be a large one by present standards, possibly more than 200 acres. It follows, then, that there is probably no such thing as an ideal outdoor site for ECO-education purposes. Indeed, in the opinion of these jurors there are no absolutely essential characteristics for such a site.

The investigators were George W. Donaldson and Donna Schmidt, Director of an instructional materials center in Deerfield, Illinois.

APPENDIX II

OUTDOOR SCHOOL SITE EVALUATION BOOKLET

DAVID FAITH
Coordinator of Conservation Education
Bellevue, Washington, Public Schools

The weighting assigned each item was accomplished by Mr. Wes Visser and Mr. Phil Bratta, Students in Outdoor Teacher Education in conference with Dr. George Donaldson, their instructor, at the Lorado Taft Field Campus of Northern Illinois University.

(Included with the permission of the Bellevue Schools).

OUTDOOR SCHOOL SITE EVALUATION

GENERAL INSTRUCTIONS

The Outdoor School Site Evaluation booklet is accompanied by a score sheet and scoring instructions. Starting with Section A in the booklet, complete each item in turn by entering the score in the corresponding space on the score sheet. After the evaluation has been completed, a percent score can be arrived at for any part of it or for the site as a whole with ease, if the evaluator wishes.

In case where a "yes" or "no" answer is indicated, "yes" will be equivalent to 3 on a scale, and "no" will be equivalent to 1.

Some of the questions cannot be readily answered by simple observation. To complete these, a person who is familiar with the facility being evaluated can be consulted.

It is necessary to read the scoring instructions carefully before attempting to complete the evaluation.

At the end of each category, space has been provided for the evaluator to include items he feels are important to the site evaluation that are not included in the instrument. These items do not occur in the same format as the rest of the instrument, and therefore are not influenced by a weighting factor but shall receive the number of points as prescribed by the evaluator based upon the number of points possible.

In conducting the site evaluation, a team approach is best. A small team of three to five individuals is recommended. These individuals should have some working knowledge of outdoor schools in order to facilitate their task. They can rate the facility separately and average their results or they can discuss each item and rate it as a group.

(Note: This evaluation assumes that the administrator is searching for a facility in which all services except the educational program are provided by the owners/operators. Users of the handbook will employ only the relevant items.)

EVALUATION BOOKLET

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OUTDOOR SCHOOL SITE DEVELOPMENT

BASELINE INFORMATION

1. Name of facility or site being evaluated

   ____

2. Location

   ____

   ____

3. Owner's Name and Address

   ____

   ____

   ____

4. Capacity ____________________________________

5. Cost per person per week __________(5 days)

6. Cost per person per day __________

7. Names of evaluation team members

   ____

   ____

   ____

   ____

Outdoor School Site Evaluation

Scoring Instructions

The score for each item (i.e., 1, 2, or 3) is multiplied by its assigned weight, which is indicated in brackets next to the item number, to give an item score. The sum of the item scores for each subcategory provides a score for that subcategory and the sum of the scores for each subcategory provides a category score. The sum of the category scores is the score for the evaluation.

For example, the following hypothetical case:

Category I. General Considerations

(wt. 4) 1. Is the site located within reasonable distance of the school district?

Very close 3 2 1 Very distant

The item score would be 4 x 2 or 8.

(wt. 3) 2. Is the site accessible during the portion of the year that Outdoor School operations occur?

Very accessible 3 2 1 Not accessible

The item score would be 3 x 2 or 6.

The sum of the two scores (6 + 8) would be 14.
The highest possible score would have been 21.

SECTION I. CRITICAL FEATURES

The following items deal with those characteristics that are so critical in the selection of an outdoor school site, that a serious shortcoming relative to any one would necessitate exclusion of a site from consideration. Unless a perfect score of yes is reached on this section, the evaluator need not proceed with SECTION II.

A. General Considerations

1. Is the site located within 150 miles of the utilizing agency?

   Yes _____ No _____

2. Can the site be used and reached during all seasons for which use is intended?

   Yes _____ No _____

3. Does the site lend itself to necessary indoor activities as well as those that can be planned for the outdoors?

   Yes _____ No _____

B. Facilities

1. Is the overnight capacity of the site sufficient to accommodate maximum program demands as planned?

   Yes _____ No _____

2. Does the physical plant include the large meeting areas, small meeting areas, storage space, office space, recreational facilities, food service areas and dining areas needed?

   Yes _____ No _____

3. Is the facility equipped to feed the maximum number of individuals planned for?

   Yes _____ No _____

4. Are the facilities in compliance with state health and safety regulations?

   Yes _____ No _____

5. Are the facilities and neighboring areas safe from unusual hazards?

   Yes _____ No _____

C. Services

1. Are all of the following services available: electricity, running water, garbage disposal, sewage disposal?

   Yes _____ No _____

2. Is food service available as needed (cook, kitchen, menu)?

   Yes _____ No _____

D. Availability

1. Can use of the site be arranged with nine months or less advance notice?

   Yes _____ No _____

E. Cost

1. Is the overall* cost including transportation to and from the site, less than $30 per student? (Deduct any state reimbursement from transportation costs.)

*Overall costs includes room, board, transportation, and other services if offered.

SECTION II. DETAILED EVALUATION

A. General Considerations

1. Accessibility

(wt. 2) a. Are the roads and approaches to the site in good repair, wide enough to accommodate school buses and reasonably safe?

Excellent 3 2 1 Poor

(wt. 3) b. Can emergency transportation be provided at the site?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) c. Can the site be reached (within two miles) by air?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) d. Can the site be reached by boat?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) e. Is the site within 10 miles of shopping and supply areas?

1 mile or less 3 2 1 10 miles

(wt. 3) f. Is the site within 20 miles of emergency medication facilities, doctors' offices, etc.?

1 mile or less 3 2 1 20 miles

(wt. 3) g. Is the site within 20 miles of emergency police assistance and a fire department?

1 mile or less 3 2 1 20 miles

2. Privacy

(wt. 3) a. Is the site situated at least 500 yards from all major thoroughfares?

500 yards or more 3 2 1 less than 100 yards

(wt. 3) b. Is there some separation between the kitchen, housing and classroom areas or buildings?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) c. Is the site 500 yards or more from neighboring installations?

500 yards or more 3 2 1 less than 100 yards

(wt. 3) d. Is the site situated 1 mile or more from undesirable or hazardous installations like garbage dumps or oil refineries, abandoned mines, etc.?

1 mile or more 3 2 1 less than ½ mile

3. Zoning

(wt. 2) a. Is a zoning law in force that applies to the site?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) b. Is the zoning of the site appropriate to its intended usage?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) c. Is the zoning in the area expected to remain stable?

Definitely 3 2 1 Maybe

B. Facilities

1. Physical and Natural Features

(wt. 2) a. Does the site have capability for growth and expansion?

Very capable 3 2 1 Not capable

(wt. 2) b. Is there a variety in topography on and around the site?

Great variety 3 2 1 No variety

(wt. 2) c. Is there variety in the vegetation and around the site?

Great variety 3 2 1 No variety

(wt. 2) d. Is there an abundance of wild creatures in the area of the site?

Abundant 3 2 1 No abundance

(wt. 1) e. Is travel through the undergrowth limited by its density?

Not limited 3 2 1 Very limited

(wt. 2) f. Is the site and its surroundings pleasing to the eye?

Very pleasing 3 2 1 Ugly

(wt. 3) g. Are railings, fences, signs, etc., situated to insure safety in hazardous areas?

In all cases 3 2 1 In no cases

(wt. 3) h. Is there at least one acre per child available?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) i. Is a total of at least 100 acres available?

100 or more 3 2 1 less than 50

(wt. 2) j. Is the site nearly square or circular?

Square 3 2 1 Elongated

(wt. 2) k. Is the property essentially continuous and undivided?

All one parcel 3 2 1 Fragmented

(wt. 3) l. Is the property well drained so as to avoid flooding?

Well drained 3 2 1 Prone to flooding

(wt. 3) m. Are there outside fire stations and alarms?

Numerous 3 2 1 None

2. Parking

(wt. 3) a. Are parking and loading areas provided?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) b. Are the parking areas and loading zones roomy?

Ample space 3 2 1 Too small

(wt. 2) c. Are parking areas properly drained?

Excellent drainage 3 2 1 Poor drainage

(wt. 2) d. Are parking areas surfaced with a durable material?

Durable surface 3 2 1 Poor surface

(wt. 3) e. Are the parking areas offensive to the eye?

Not offensive 3 2 1 Very offensive

(wt. 2) f. Are parking areas textured to prevent skidding, etc.?

Good texture 3 2 1 Smooth

(wt. 2) g. Is there outside lighting?

Sufficient 3 2 1 None

3. Administrative Area

(wt. 2) a. Is office space availble?

One or more rooms 3 2 1 No separate space

(wt. 1) b. Is there an anteroom or waiting area for guests?

One or more rooms 3 2 1 No separate space

(wt. 3) c. Is there at least one storage room?

More than one 3 2 1 No storage space

(wt. 4) d. Is there a telephone accessible at all hours?

Always accessible 3 2 1 No phone

(wt. 2) e. Are there toilet and drinking facilities in the administrative area?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) f. Is there space to isolate sick students and house medical supplies, etc.?

An infirmary 3 2 1 No Space

(wt. 2) g. Is there a separate residence for a nurse?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) h. Are all areas ventilated and heated?

Good ventilation/heat 1 2 3 No ventilation/heat

(wt. 4) i. Are there fire extinguishers present?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) j. Are fire alarm signals present?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) k. Is there office equipment available, like typewriters, copy machines, paper cutters and ditto machines?

More than above 3 2 1 None of the above

4. Instructional Areas

(wt. 2) a. Is there a library or resource center containing reference material, recreational reading material and other instructional materials?

Very complete 3 2 1 None at all

(wt. 2) b. Are classrooms or similar work areas available for use?

Numerous 3 2 1 None

(wt. 2) c. Are chairs, tables and other furniture available for use?

Numerous 3 2 1 None

(wt. 1) d. Are chalkboards available?

Numerous 3 2 1 None

(wt. 1) e. Are there bulletin boards or other display areas set up?

Numerous 3 2 1 None

(wt. 2) f. Is there an arts and crafts area available with sinks, work tables, etc.?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) g. Is there a large meeting area like a hall or gymnasium available?

Very large 3 2 1 Small

(wt. 3) h. Are the indoor instructional areas well ventilated?

Well ventilated 3 2 1 Poorly ventilated

(wt. 3) i. Are the indoor instructional areas heated?

Central heated 3 2 1 No heat

(wt. 4) j. Are fire extinguishers present in instructional areas?

Numerous 3 2 1 None

5. Student Leader, Counselor, Supervisor Accommodations

(wt. 2) a. Are separate rooms or areas provided in student housing areas for supervisors?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) b. Are supervisor living areas furnished with beds, chairs, tables and curtains?

All the above 3 2 1 No furniture

(wt. 1) c. Are study areas available for supervisors?

Excellent 3 2 1 Poor

(wt. 2) d. Is there a separate lounge or recreation area for supervisors, high school student leaders, etc.?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) e. Are the student leader, supervisor accommodations ventilated?

Well ventilated 3 2 1 Poorly ventilated

(wt. 3) f. Are the student leader, supervisor accommodations heated?

Central heating 3 2 1 No heat

(wt. 3) g. Are showers, bathrooms and washing facilities readily available to or included in the student leader, supervisor accommodations?

All the above 3 2 1 None

(wt. 4) h. Are fire extinguishers placed in student leader, supervisor areas?

Yes _____(3 pts.) No _____(1 pt.)

6. Food Service Area

(wt. 3) a. Is there a kitchen of sufficient size to serve large groups?

Ample 3 2 1 None

(wt. 3) b. Is there an area for dry storage of food?

Ample 3 2 1 None

(wt. 3) c. Is there a cold storage area for food?

Ample 3 2 1 None

(wt. 3) d. Is there a freezer?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) e. Are there counters and food preparation surfaces?

Ample 3 2 1 None

(wt. 2) f. Is there a variety of food preparation equipment suited for serving large groups?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) g. Is there a beverage dispenser or equivalent?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) h. Is the food service area well ventilated?

Good ventilation 3 2 1 Poor ventilation

(wt. 3) i. Is the food service area heated?

Central heating 3 2 1 None

(wt. 3) j. Is there evidence of attention to cleanliness and hygiene?

Considerable 3 2 1 Little

(wt. 3) k. Is there equipment and space for dishwashing?

Ample 3 2 1 None

(wt. 1) l. Are cooks, dishwashers, dining room supervisors and assistant cooks on call?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) m. Is garbage disposal efficient and removal regular?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) n. Is the food service area screened against insects?

Completely 3 2 1 No

(wt. 2) o. Is there a large dining area?

Ample 3 2 1 Small

(wt. 3) p. Is the dining area properly furnished?

Very well 3 2 1 Poor

(wt. 2) q. Are there drinking fountains?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 4) r. Are fire extinguishers evident in the kitchen and dining area?

Numerous 3 2 1 None

7. Student Living Areas

(wt. 2) a. Are rooms arranged conveniently?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) b. Is there sufficient space (40 square feet per person) available for each person?*

More than 40 sq. feet 3 2 1 40 sq. feet

(wt. 3) c. Are student living areas furnished with beds, tables, chairs, and curtains?

All of the above 3 2 1 None

(wt. 3) d. Are student living areas well ventilated?

Well ventilated 3 2 1 Poorly ventilated

(wt. 3) e. Are student living areas heated?

Central heating 3 2 1 No heat

(wt. 3) f. Are mattresses of good quality material?

Good quality 3 2 1 Poor quality

*check local codes

(wt. 2) g. Is there closet or locker space for each student (individual or in a single large compartment)?

For each 3 2 1 None

(wt. 4) h. Are fire extinguishers present in student living areas?

Numerous 3 2 1 None

8. Washrooms

(wt. 3) a. Is there at least one wash station for every 10 individuals?

More than 1 for 10 3 2 1 Less than 1 for 10

(wt. 3) b. Are washrooms located near sleeping areas?

Close 3 2 1 Distant

(wt. 3) c. Are washrooms modern and in good condition?

Excellent 3 2 1 Poor

(wt. 3) d. Is there at least one toilet (including urinals) for every 10 individuals?

More than 1 for 10 3 2 1 Less than 1 for 10

(wt. 2) e. Is privacy available in the washrooms?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) f. Is there at least one shower for every four individuals?

More than 1 for four 3 2 1 Less than 1 for four (wt. 3) g. Is it evident that consideration has been given to health, hygiene and cleanliness as well as sanitation?

Much consideration 3 2 1 No consideration

(wt. 3) h. Are washrooms well ventilated?

Very well 3 2 1 Poorly

(wt. 3) i. Are washrooms heated?

Central heating 3 2 1 No heat

9. Maintenance Areas

(wt. 3) a. Is separate space set aside for maintenance work?

Ample 3 2 1 None

(wt. 2) b. Are shops and maintenance areas located away from student-use areas?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) c. Are tools and necessary equipment available for maintenance work?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) d. Are provisions made for proper storage of tools and equipment?

Yes _____(3 pts.) No _____(1 pts.)

(wt. 3) e. Are safety precautions observed in maintenance areas?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) f. Are combustible materials properly stored?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) g. If the climate dictates, is there snow removal equipment?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) h. Are fire extinguishers placed in maintenance areas?

Numerous 3 2 1 None

10. Resource Areas

(wt. 3) a. Is a forest environment within walking distance?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) b. Are open areas close within walking distance?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) c. Is there a body of fresh water within walking distance?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) d. Is there a body of salt water nearby?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) e. Is there a fresh water beach within walking distance?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) f. Is there a salt water beach within walking distance?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) g. Is there evidence of geological history or happenings in the area?

Much 3 2 1 None

(wt. 1) h. Is there an arid area within walking distance?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) i. Is wildlife abundant and observable?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) j. Are there cultivated lands within walking distance?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) k. Are there gullies and ravines within walking distance?

Yes _____(3 pts.) No _____(1 pt.)

11. Approvals

(wt. 3) a. Does the site have American Camping Association approval?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) b. Is the water supply sufficient to serve a capacity group over a long period?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) c. Does the facility comply with occupational (workmen's compensation) insurance requirements?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 3) d. Are all state, federal, and local codes complied with?

Yes _____(3 pts.) No _____(1 pt.)

C. Services

1. Water Supply

(wt. 1) a. Are pumps and wells located properly?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) b. Is the water supply sufficient to serve a capacity group over a long period?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) c. Are shut-offs well marked and accessible?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) d. Is there a water storage facility or reservoir?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) e. Is there a second or alternate source of pure water?

Yes _____(3 pts.) No _____(1 pt.)

2. Sewage Disposal

(wt. 2) a. Is there a functioning sewage disposal system?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) b. Are septic tanks well located?

Well located 3 2 1 Poorly located

(wt. 1) c. Are all drainage fields well located?

Well located 3 2 1 Poorly located

3. Food Service

(wt. 3) a. Is the food inspected and up to government standards?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) b. Is the food served in sufficient quantity to allow for seconds?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) c. Are the menus planned so as to provide a balanced diet?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 2) d. Can special arrangements be made for individuals with dietary problems or special requirements?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) e. Is food served in attractive fashion?

Very attractive 3 2 1 Offensive

4. Electrical Service

(wt. 2) a. Is electric service provided?

Yes _____(3 pts.) No _____(1 pt.)

(wt. 1) b. Is an alternate source of electrical power available?

Yes _____(3 pts.) No _____(1 pt.)

5. Garbage Disposal

(wt. 2) a. Is a regular garbage disposal schedule established and arranged for?

Yes _____(3 pts.) No _____(1 pt.)

6. Staff

(wt. 1) a. Is there a resident staff at the site which includes maintenance people?

Three or more 3 2 1 None

D. Cost

1. Food Service

(wt. 1) a. Is the cost of food service competitive with other similar facilities in the area?

Yes _____(3 pts.) No _____(1 pt.)

2. Rental

(wt. 1) a. Is the cost of rental competitive with other similar facilities in the area?

Yes _____(3 pts.) No _____(1 pt.)

E. Availability

1. Fall

(wt. 2) a. Can the facility be scheduled in fall?

Yes _____(3 pts.) No _____(1 pt.)

2. Spring

(wt. 2) a. Can the facility be scheduled in spring?

Yes _____(3 pts.) No _____(1 pt.)

3. Winter

(wt. 1) a. Can the facility be scheduled in winter?

Yes _____(3 pts.) No _____(1 pt.)

4. Summer

(wt. 1) a. Can the facility be scheduled in summer?

Yes _____(3 pts.) No _____(1 pt.)

1. Fall

The highest possible score on this subcategory is 3. The score reached by the above named site on this subcategory is __________.

ITEM	SCORE	HIGHEST POSSIBLE ITEM SCORE
a.		3

2. Spring

The highest possible score on this subcategory is 3. The score reached by the above named site on this subcategory is __________.

ITEM	SCORE	HIGHEST POSSIBLE ITEM SCORE
a.		3

3. Winter

The highest possible score on this subcategory is 3. The score reached by the above named site on this subcategory is __________.

ITEM	SCORE	HIGHEST POSSIBLE ITEM SCORE
a.		3

4. Summer

The highest possible score on this subcategory is 3. The score reached by the above named site on this subcategory is __________.

ITEM	SCORE	HIGHEST POSSIBLE ITEM SCORE
a.		3

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RESEARCH IN OUTDOOR EDUCATION: SUMMARIES OF DOCTORAL STUDIES

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